DRUG & COSMETIC INDUSTRY

JUNE, 1951

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THOMAS R. FARRELL, Editor
FRANCIS CHILSON, Production Consultant
MILTON A. LESSER, Technical Editor
HARRY G. KELBLY, Raw Material Editor
FRANK CHILD III, News Editor
MAX FRANKEL, Art Director

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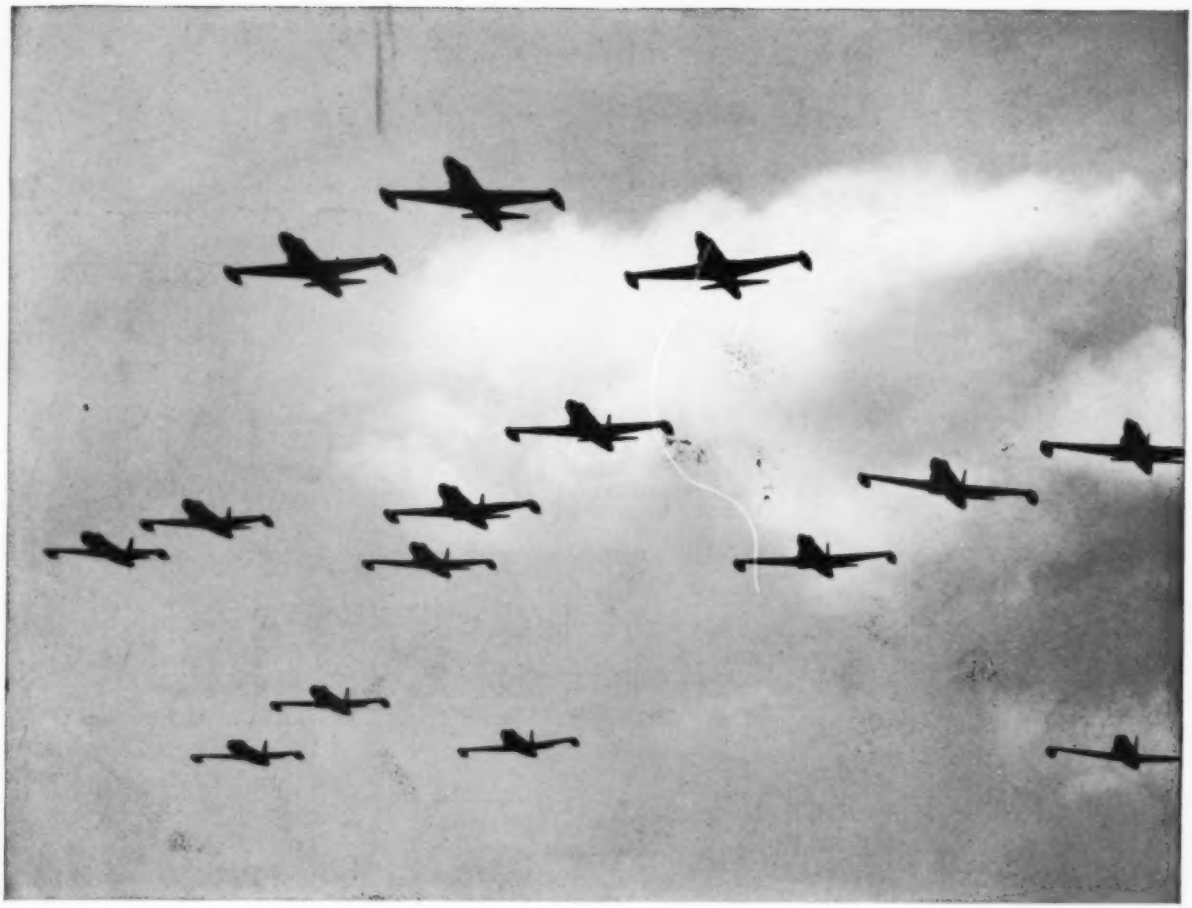

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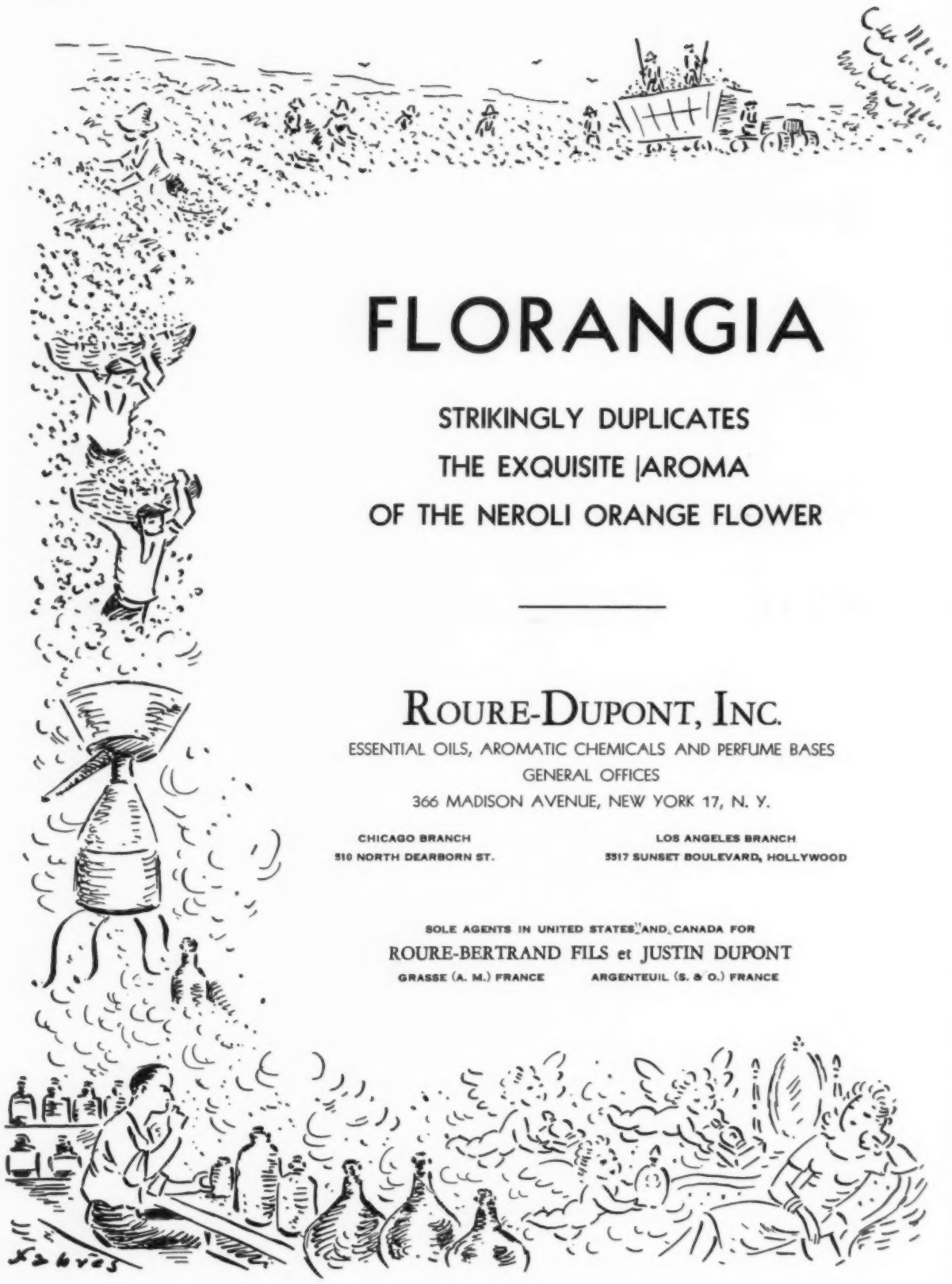

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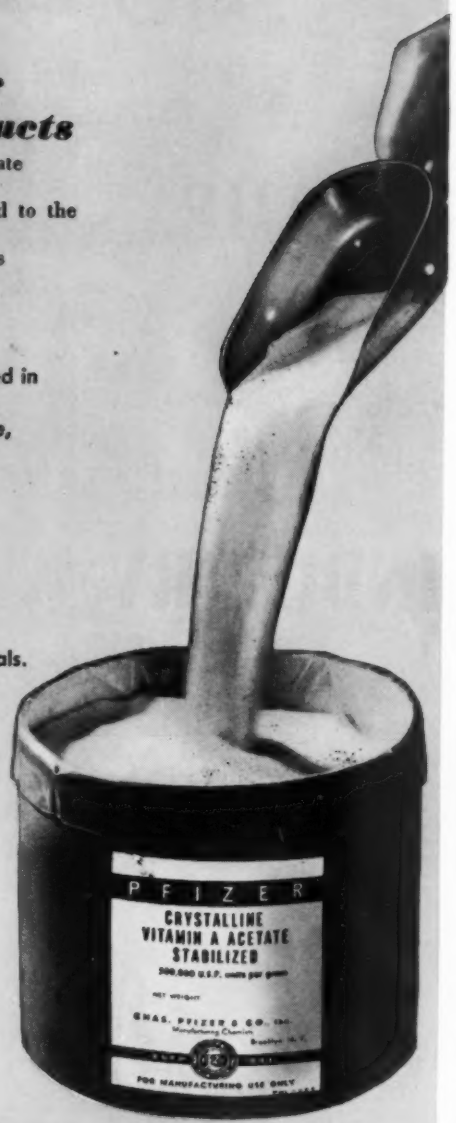

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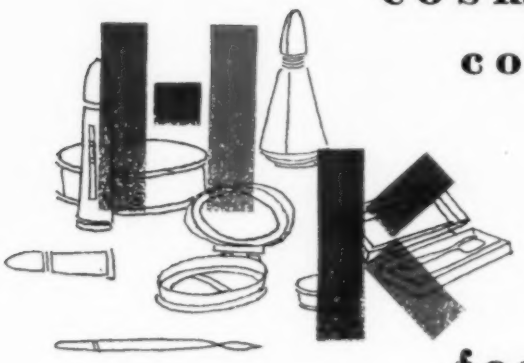

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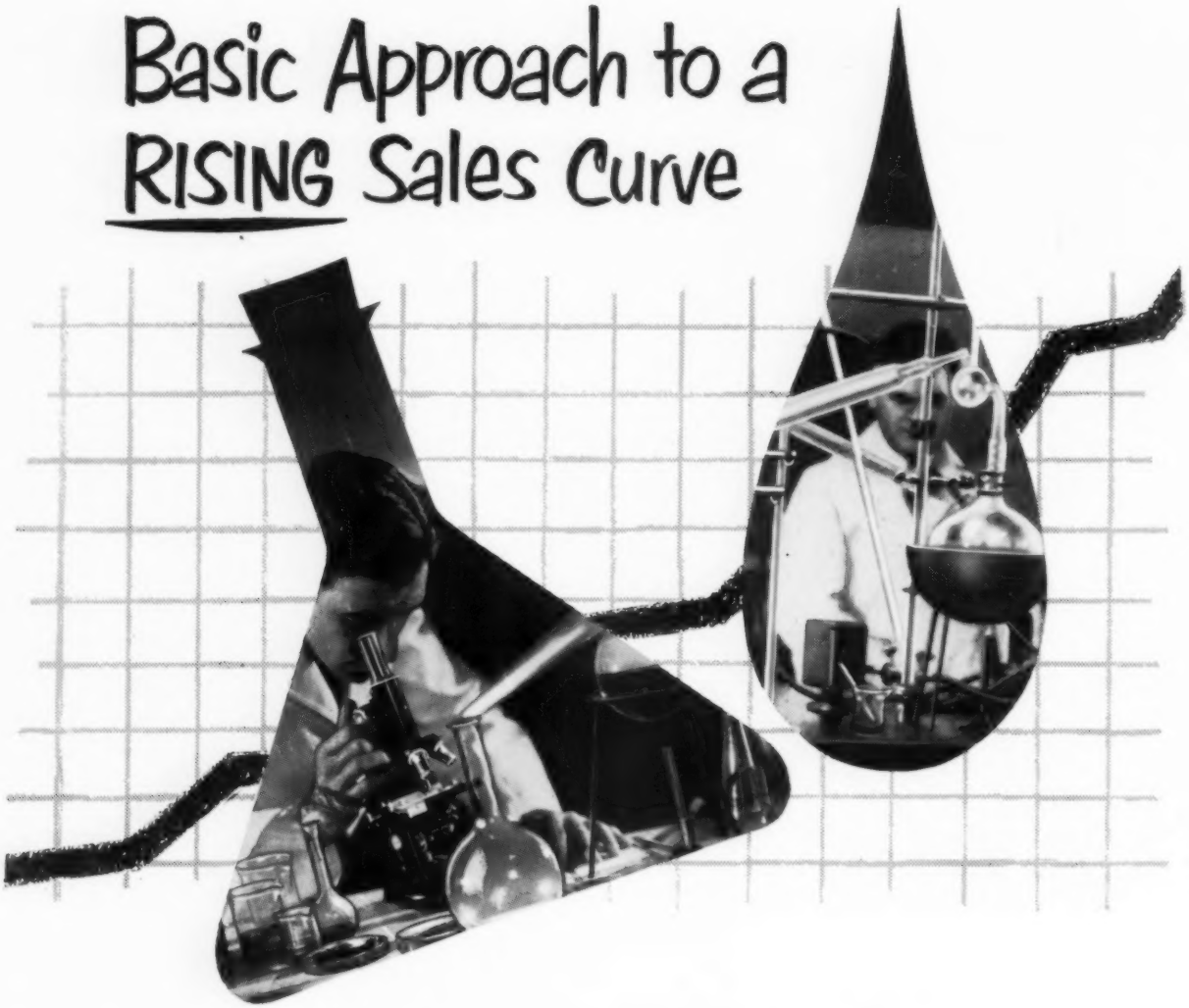

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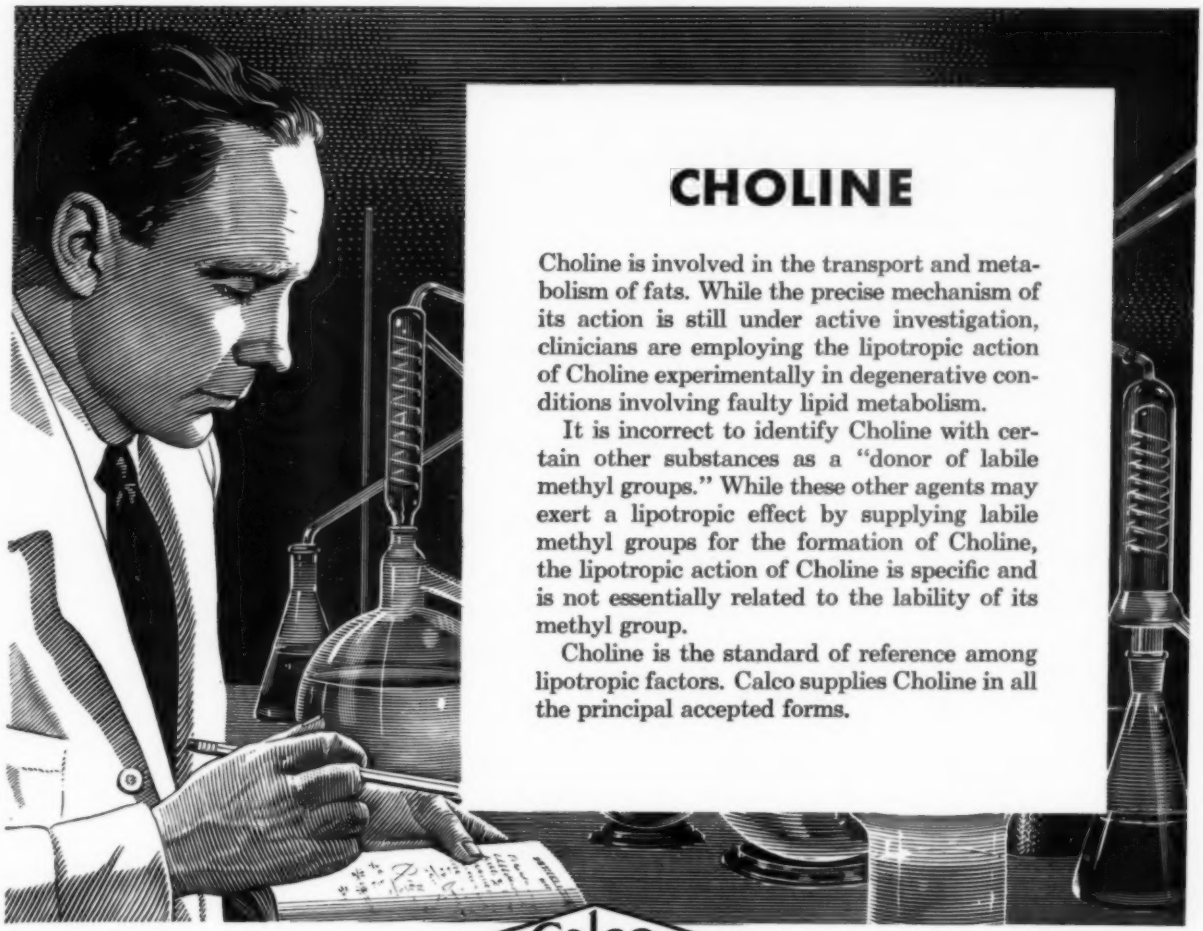

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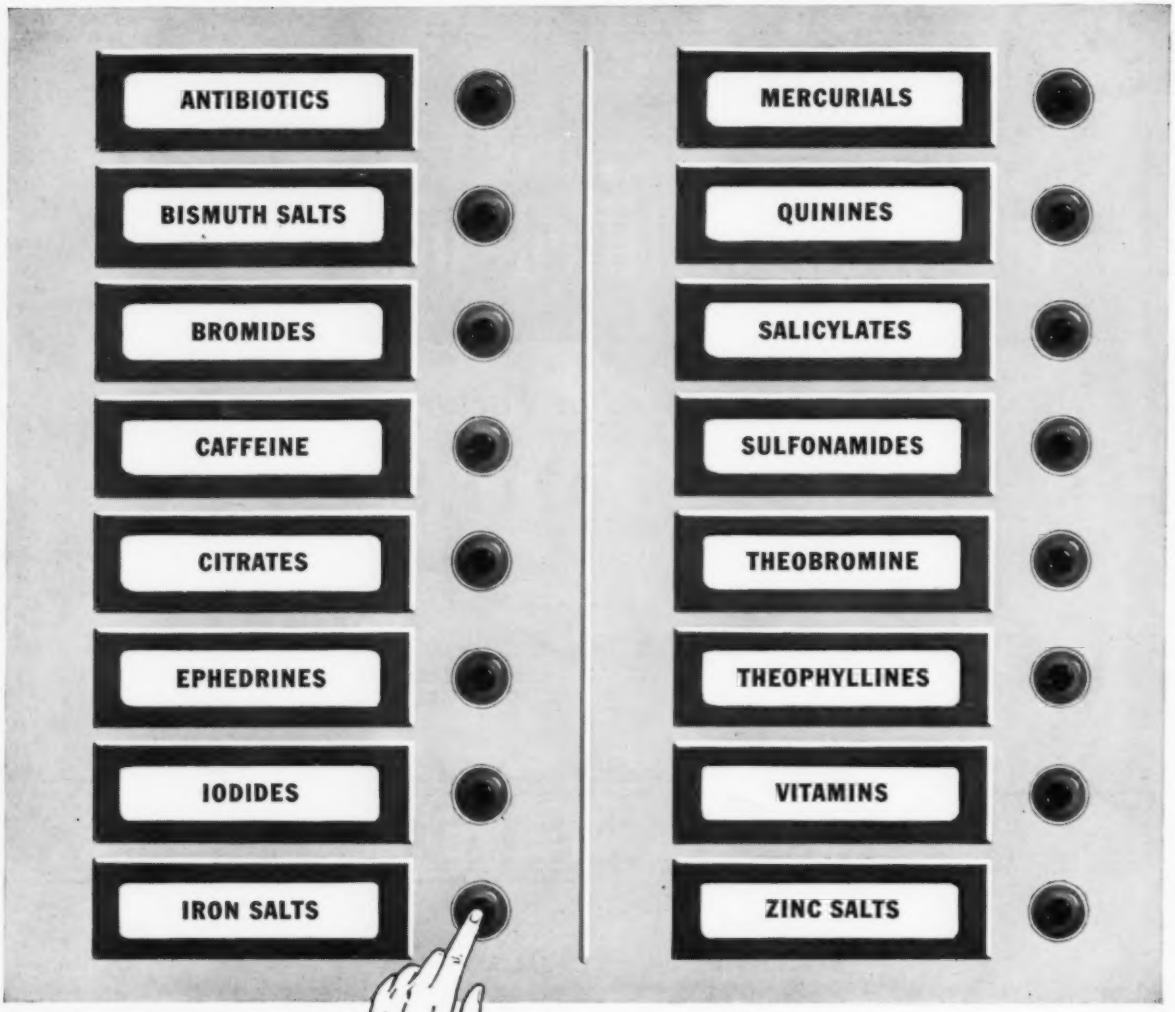

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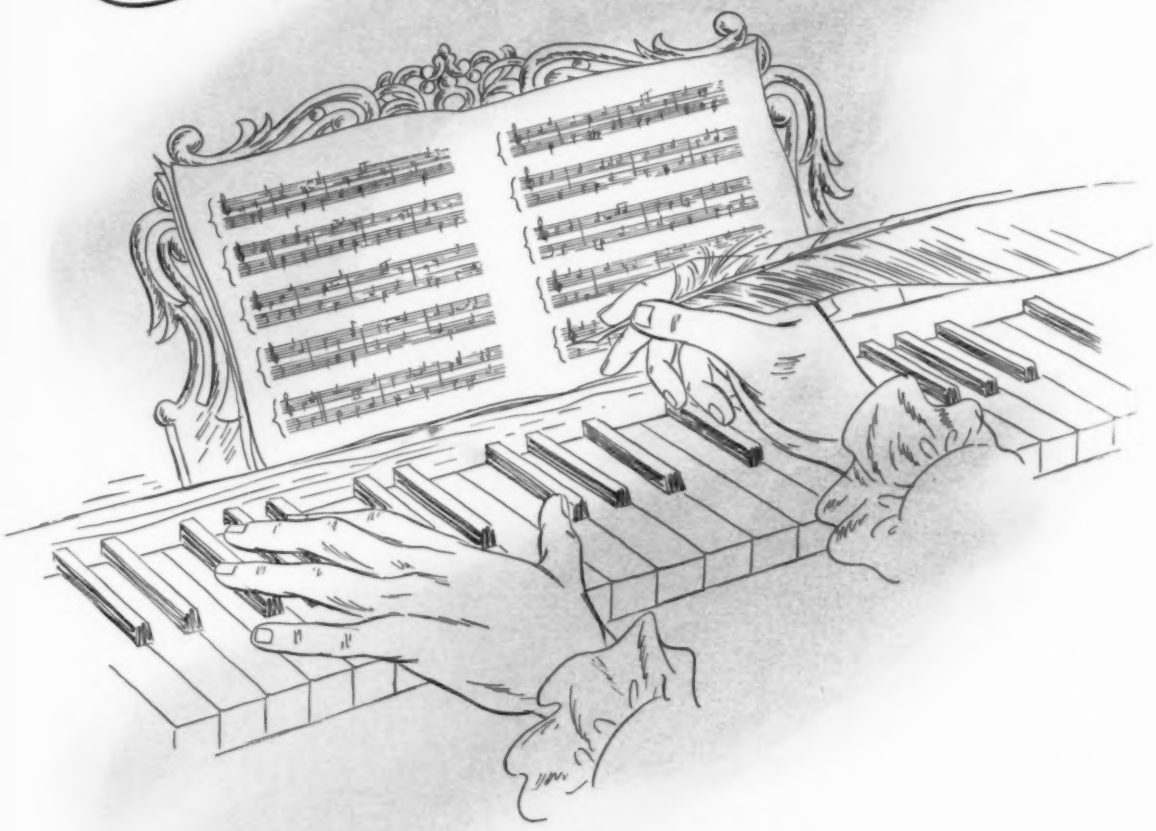

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All through life—from childhood to old age—chemistry brings relief from pain and fever. For instance—there are many Monsanto chemicals employed for their specific curative value. The sulfa drugs are important in this group. Antibiotics are increasing in use. So are antitubercular agents—a family of chemicals now in varying stages of clinical study. In addition, research is constantly exploring newer and better applications.

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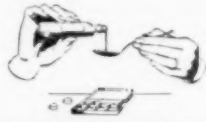
Described here are only a few of the many Monsanto chemicals and plastics important to manufacturers of medicinal and drug products. Their production and availability are geared to meet current demands of the national economy.

Saccharin is one of Monsanto's earliest products. It is a powerful sweetening agent, having 375 times the sweetness of sugar. Since it has no food value whatever, it is of special value in dietary conditions where the use of sugar is either restricted or ruled out entirely.

Manufacturers of medicinal and drug products are adopting packages and containers made of Lustrex*—Monsanto's styrene molding compound. Comes in a wide variety of colors, including crystal clear . . . Another Monsanto plastic—Resinox* phenolic—is widely used in pharmacy for many types of bottle and jar closures.



Acetophenetidin and acetylsalicylic acid (aspirin) are two Monsanto pharmaceuticals widely used where relief from pain and fever is indicated . . . Caffeine is another chemical made by Monsanto, world's largest producer . . . In the fields of nutrition and medication, many Monsanto phosphate products play important roles.

WRITE FOR INFORMATION—Manufacturers and formulators of pharmaceutical products are invited to consider Monsanto as their source of dependable supply . . . Of added interest are Monsanto's custom-manufacturing facilities, which offer important economies and assure quality products . . . Write for information on the following:

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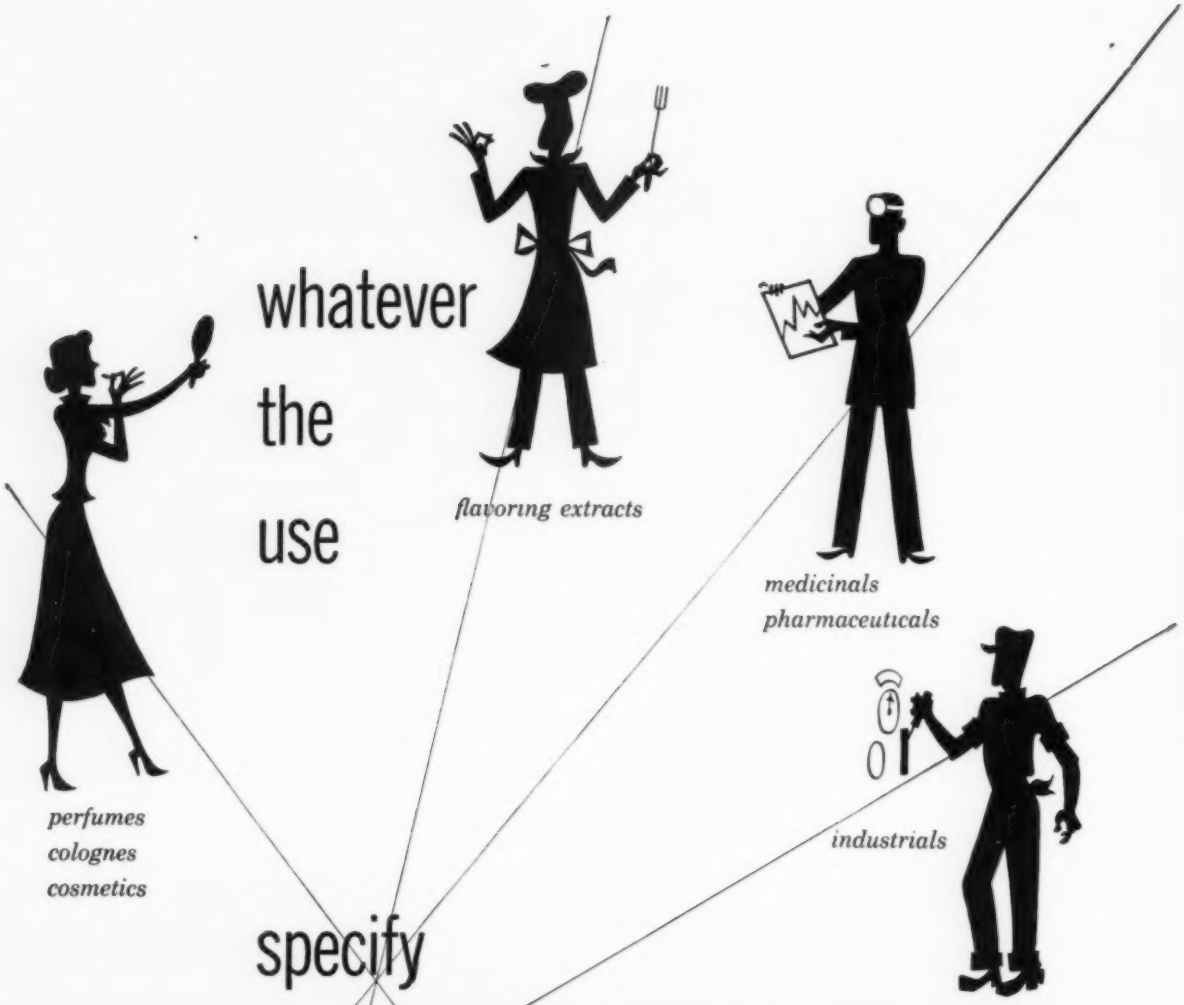

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. . . an appealing fragrance inspired by the "Sweet Tobacco" of the old-fashioned garden

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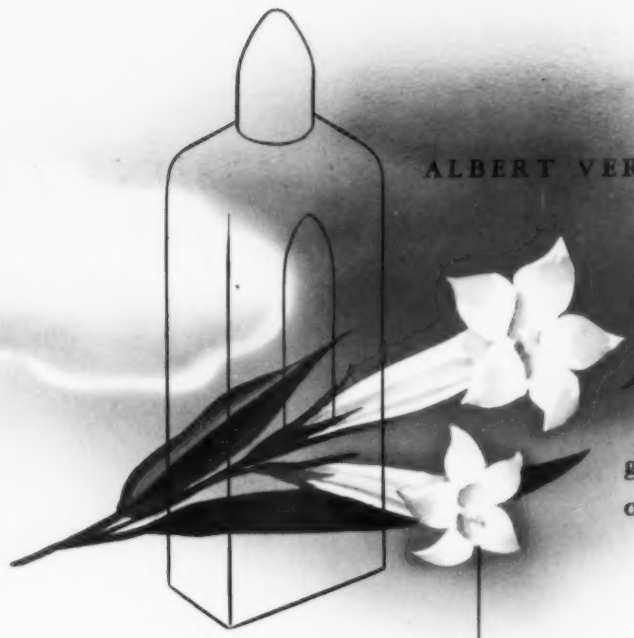

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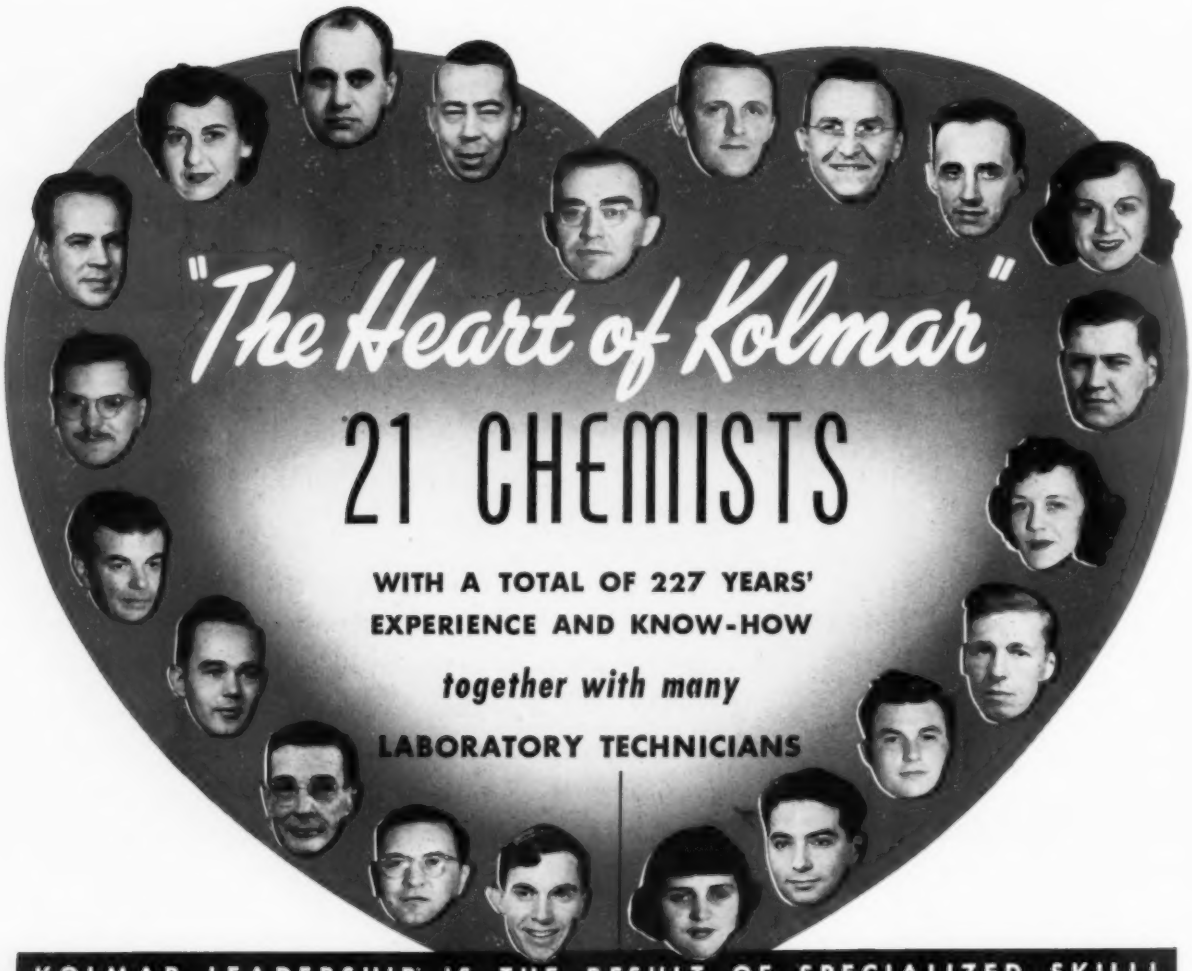

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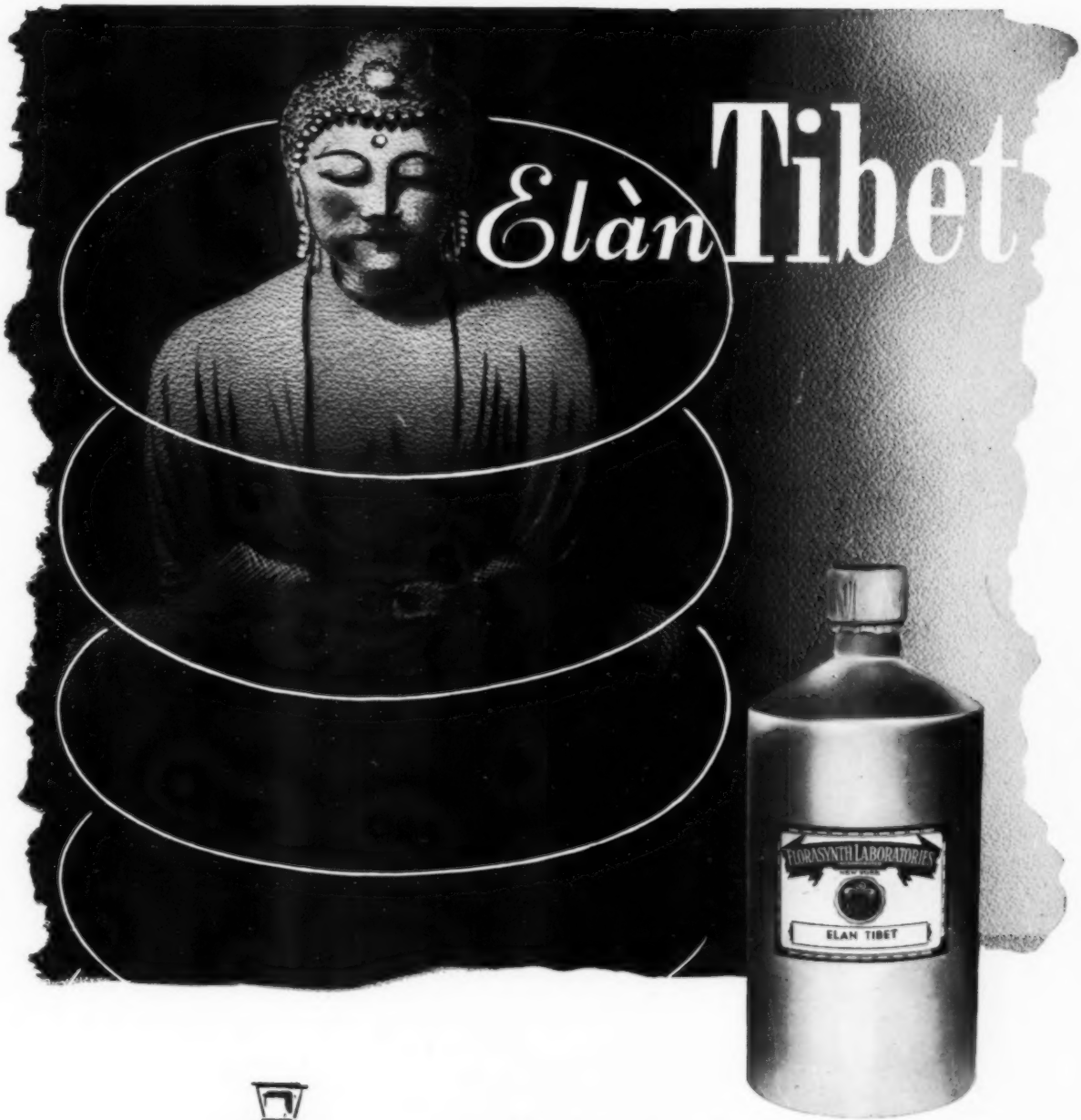

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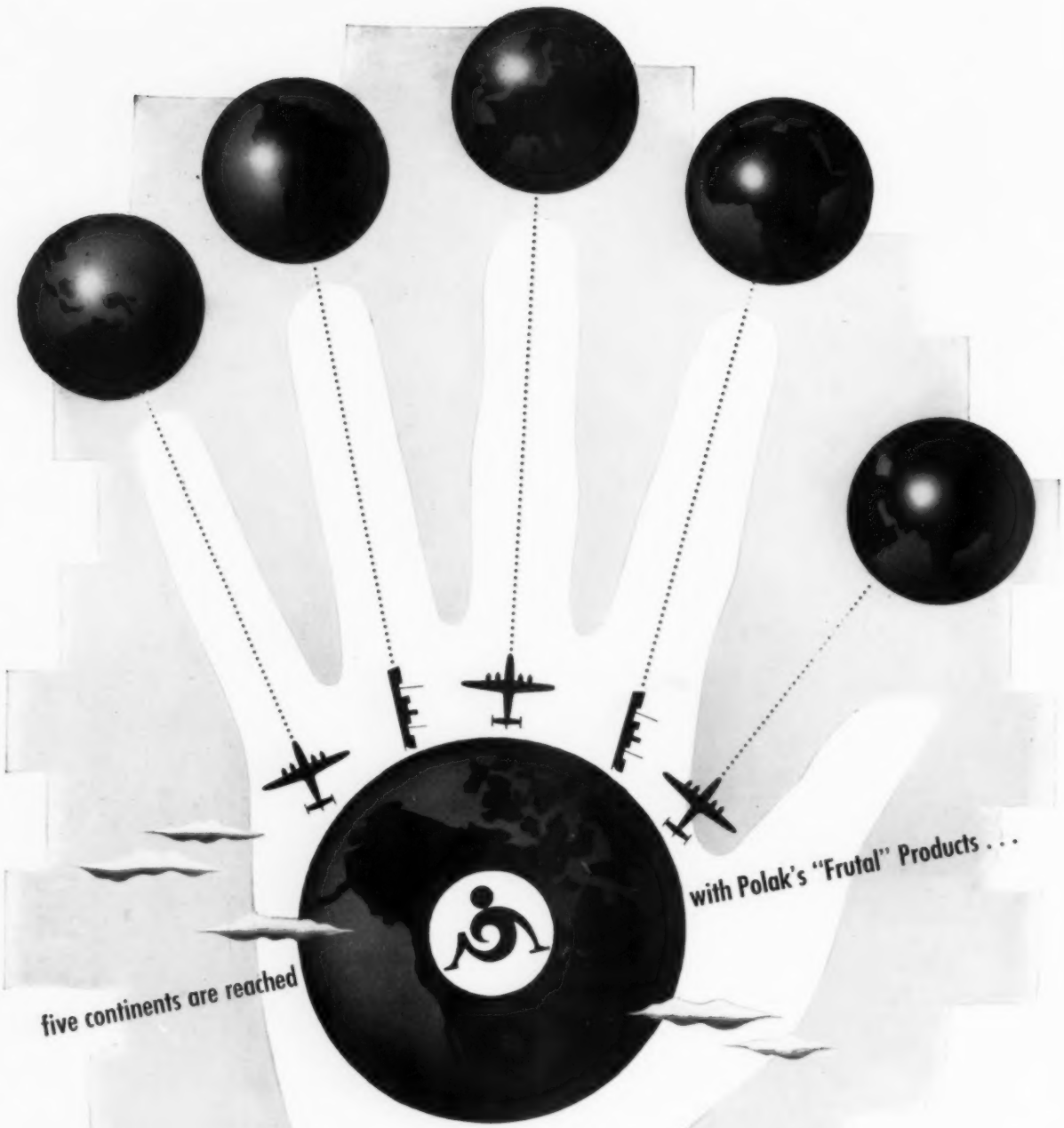

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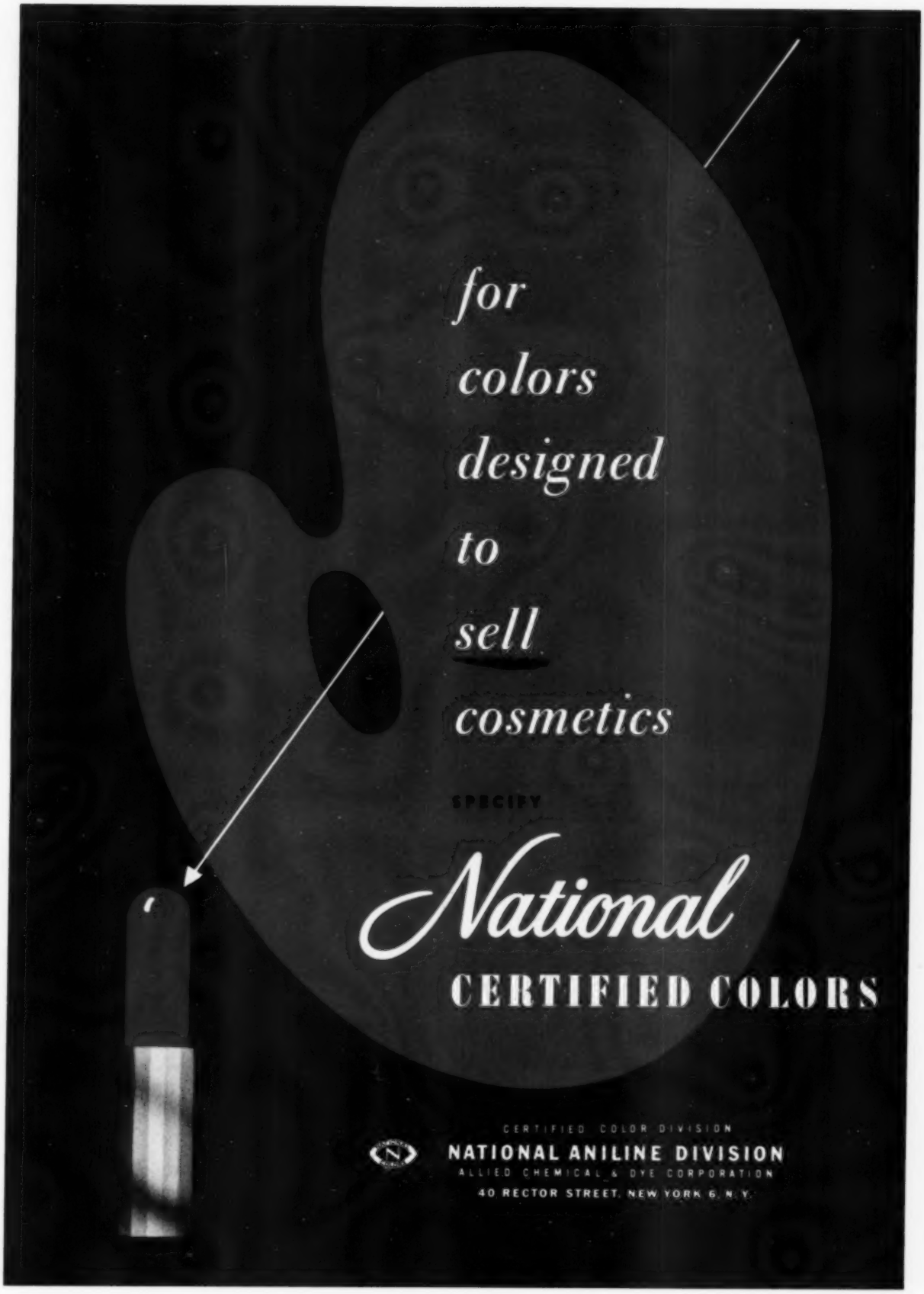
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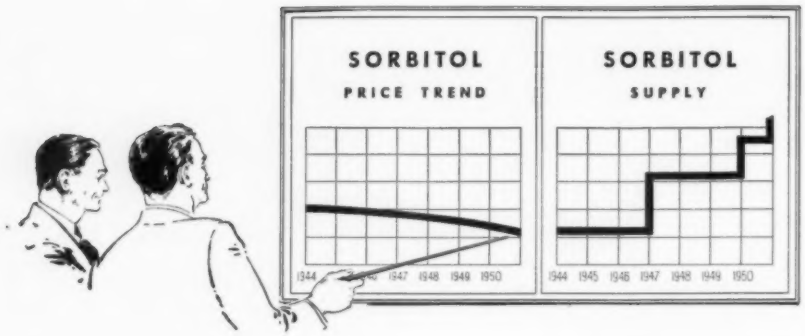

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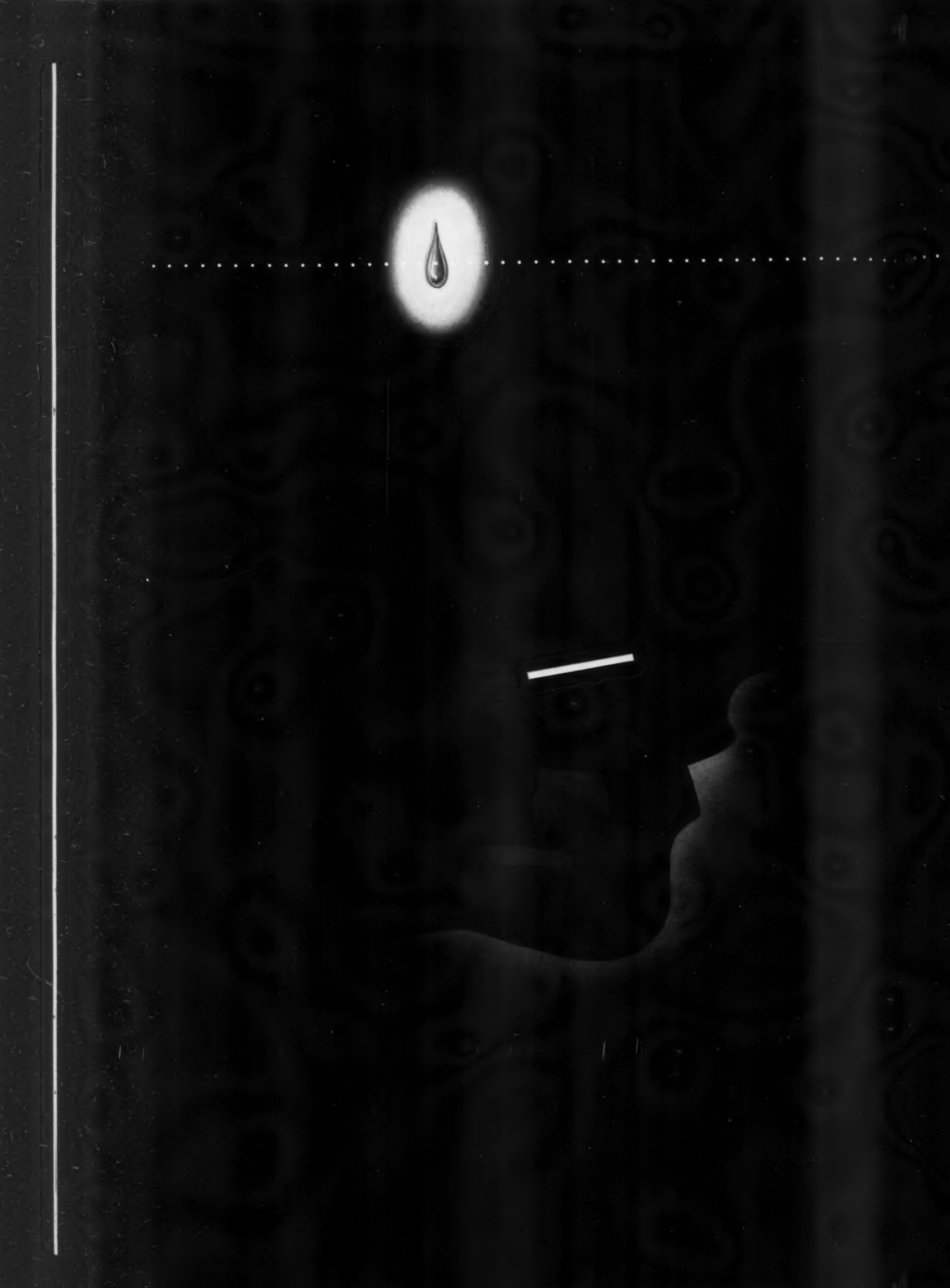

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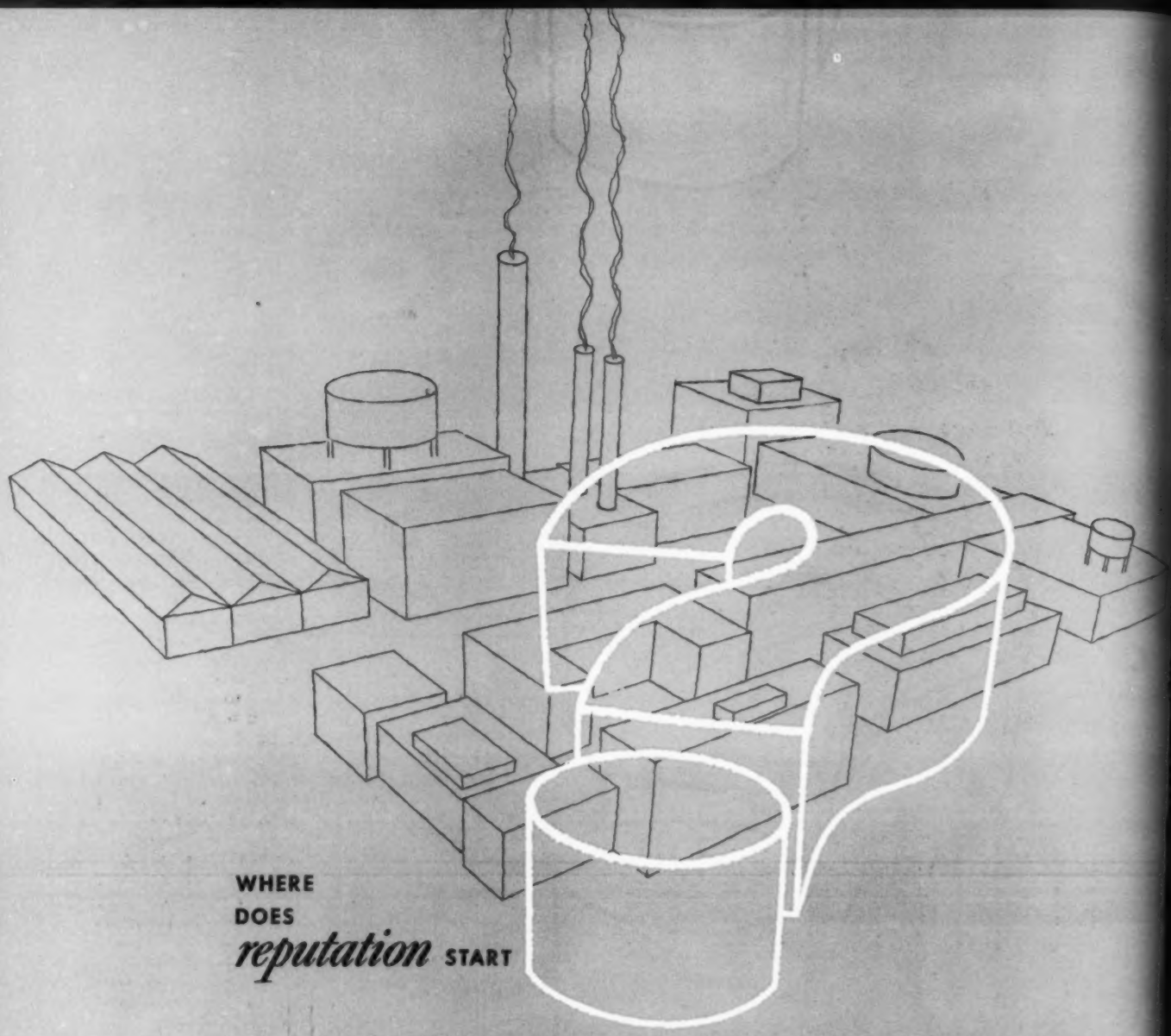

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A guy can't share with any of them, can he?"

KEEPING POSTED

The Twilight of Fair Trade

FAIR trade as it has existed since the enactment of the Miller-Tydings amendment to the Sherman Act in 1937, is through. The U. S. Supreme Court, in the case of Schwegmann Brothers, a New Orleans liquor retailer, vs. Calvert Distillers Corporation, has decided that contracts made interstate under state fair trade acts are only enforceable so far as the signers of these contracts are concerned, and cannot be enforced against competing retailers who did not sign such contracts. This decision in no way invalidates the non-signer provision of the State Fair Trade Acts, and this provision is still enforceable by a manufacturer against those not signing contracts, if the manufacturer is resident in the state or states in which he seeks to enforce such contracts.

In other words the situation is thrown back almost to the condition which existed prior to the enactment of the Miller-Tydings Amendment. The only difference is that contracts made interstate can be enforced against those who sign them, while these contracts were illegal prior to the enactment of the Miller-Tydings Amendment. For a manufacturer to enforce fair trade prices against non-signers of contracts in each of the forty-five states having fair trade laws, he would have to register his company and thereby be resident in each of these forty-five states. Also he would have to carry his goods in each of these states. Then all transactions between the manufacturer and the distributors would be intrastate in character, and non-signers would be compelled to uphold prices.

However, such a procedure is entirely too complicated and too expensive for most manufacturers in this industry to consider, and therefore, Fair Trade in this country will be spotty and uncertain from now on. Taking the New York Metropolitan area as an example, companies which are resident in New York State, such as Squibb, Sterling-Winthrop, Coty, Revlon, etc., can enforce their contract provisions against non-signers in New York State, but such of them as are not resident in the State of New York, cannot enforce these prices against non-signers across the river. Likewise, companies which are only resident in New Jersey, cannot enforce their contract in the State of New York.

Retailers throughout the country who are interested in price-cut selling practices will make careful studies of where their goods come from and will proceed to make their own prices on goods which are manufactured by firms which are not resident in the states in which the retailers are operating. Remember, that it is not the shipment to the retailer which counts. Merely because a shipment of goods is intrastate in character, either from a wholesaler or from someone else, has nothing to do with the case. It is the contract that matters. And if this contract is made by a manufacturer in one state with a retailer in another state, then non-signers cannot be enforced to uphold prices, no matter how the goods are shipped. And contracts can only be made with retailers by manufacturers. Wholesalers have no right to make contracts with retailers which contracts concern goods manufactured by other than the wholesaler. After all, the Fair Trade Acts are measures enacted to protect the interest of manufacturers in their brand names, and therefore, all contracts concerning prices must be made by them.

As a result of this decision, the future of fair trade in this country is very dark. In order for manufacturers to protect their products against the tactics of price-cutters, they will have to resort, in very large measure, to the almost impossible task of policing all their accounts throughout the country to see that these accounts do not resell their goods to notorious price-cutters to whom the manufacturers refuse to sell. Then there is the distinct possibility of this practically free-pricing condition causing greater inroads to be made on drug store business by supermarkets and other grocery outlets. Furthermore, there is the effect that this type of selling will have on manufacturers who struggle almost vainly to uphold prices, while those who give up the ghost gain in volume as the result of the low prices quoted by these other types of outlets.

The only factor which might work against prices being cut sharply or widely is the greatly increased cost of doing business at retail today. The fact that manufacturers in this industry have not raised their prices appreciably as a result of inflation, means that retailers generally cannot cut these prices appreciably and still stay in business. However, this is not the case with those who have traditionally used these items as loss-leaders to attract customers into their stores, nor is it the case with the grocery outlets who are used to operating on much lower margins. Supermarkets have such a low operating cost that they will be pleased to stock the fast-moving items of this industry and sell them at relatively low prices.

President Roosevelt approved the Miller-Tydings Amendment "reluctantly" and only because it was a rider on an appropriations bill which he had to approve.

The Federal Administration has always been against this legislation and the Federal Trade Commission has repeatedly attacked it. In the present circumstances, the Administration probably believes that this decision of the Court will aid them in their so-called fight on inflation. For this reason there does not seem to be a "Chinaman's chance" of having a new bill, covering non-signers in interstate contracts, enacted.

Hypospray Injector Launched

THE Hypospray Jet-Injector, the first instrument for giving an injection without a needle to reach practical form, was placed on the market May 7, by E. R. Squibb & Sons acting for the R. P. Scherer Corporation, producer of the instrument. Distribution started in Akron, Ohio, and was to follow immediately in Canton, Ohio, for physicians of Stark County. The Hypospray, which is described as the only basic advance in the technique of injecting medical preparations since the invention of the hollow needle 98 years ago, has had wide clinical testing with many thousands of injections of various drugs administered to thousands of patients.

The medication to be injected by the Hypospray comes in a completely sterile cartridge made of a special steel alloy called Ludnium. A spring-activated plunger is released and forces a high velocity jet of medication through a minute opening at the tip of the cartridge. Since the cross section area of this jet is approximately twenty-two times smaller than the smallest hypodermic needle commonly in use today, comparatively few pain fibres are affected and the tissue is subject to much less damage. After penetration, the jet diffuses more widely than a needle injection, thus bringing a better absorption of the medication. The jet penetrates the tissues to a desired depth through adjustments of the Hypospray which makes it possible to allow for differences in age and skin thickness of patients at the site of injection.

Since no part of the Hypospray comes in contact with the medication, it does not require sterilization. The Ludnium cartridge holding the medication is filled under sterile conditions and delivered in a hermetically sealed aluminum outer container. The cap on the container is removed and the cartridge is transferred to the Hypospray without being touched. Filled with medications prepared by E. R. Squibb & Sons, and made available by Squibb through the usual retail outlets to the medical profession, the cartridges bear the Squibb name of Hypofil. Hypofils are now available in a wide variety of medications including penicillin and streptomycin, narcotics such as methadone and morphine, anti-anemia and nutritional products, endocrines, and certain biologicals. Preparations now available or soon to be made available include the majority of those in common use today in parenteral therapy whether aqueous solution, oil solution, or aqueous and oil suspension.

When production has expanded, the products of other pharmaceutical manufacturers will become available for use in the Hypospray. Distribution of the Hypospray will spread from the two Ohio counties as rapidly as permitted by the production of the instruments and by the filling with various medications of the special cartridges used in them. Owing to various factors controlling manufacture and distribution it is anticipated that national distribution will be achieved in something over a year. It will be considerably longer bfore physicians will be able to prescribe the Hypospray for home use by diabetics, who now, under the direction of a physician, administer insulin to themselves.

Pharmaceutical Foundation Activities

THE American Foundation for Pharmaceutical Education recently elected to its Board of Directors, James J. Kerrigan, president, Merck & Co.; Charles R. Walgreen Jr., president, Walgreen Drug Stores; Ernest H. Volwiler, president, Abbott Laboratories; George F. Smith, president, Johnson & Johnson; J. Preston Levis, board chairman, Owens-Illinois Glass Co.; George L. Webster, professor, University of Illinois. James Hill Jr., president, Sterling Drug was elected a member of the Board of Grants, and re-elected to this board were A. J. Brumbaugh and Guy Stanton Ford, chairman. Officers elected are: Charles S. Beardsley, president; H. A. B. Dunning, vice-president; Hugo H. Schaefer, treasurer; W. Paul Briggs, secretary and executive director; James F. Hoge, counsel.

A budget of nearly a quarter of a million dollars was approved for the coming year. Funds are principally used to advance pharmaceutical education in general and to provide undergraduate scholarships and graduate fellowships in pharmacy. Since 1942 the Foundation has aided over 900 undergraduate students in pharmacy colleges, nearly 100 graduate students, and is currently sustaining over 100 graduate fellows in pharmacy and closely allied fields. The Foundation will support a Teachers' Seminar this Summer at Purdue University.

Directors in addition to those listed above are: Edgar S. Bellis, Alvin G. Brush, Joseph B. Burt, George V. Doerr, Howard B. Fonda, J. Mark Hiebert, Eli Lilly, Howard C. Newton, S. B. Penick Sr., R. C. Schlotterer, John G. Searle, Robert L. Swain, C. S. Willingham, Louis C. Zopf.

Members of the Foundation are: American Association of Colleges of Pharmacy, American Drug Manufacturers Association, American Pharmaceutical Association, American Pharmaceutical Manufacturers Association, Federal Wholesale Druggists Association, National Association of Boards of Pharmacy, National Association of Chain Drug Stores, National Association of Retail Druggists, National Wholesale Druggists Association, The Proprietary Association.

Measuring Chronically Ill Needs

TO FIND OUT how many people in the United States are chronically ill and what facilities and services they need, is the object of a special study being launched by Dr. Morton L. Levin, director of the national Commission on Chronic Illness. A grant of $60,000 has been made by the Commonwealth Fund to the Hunterdon County (N.J.) Medical Center for a study of the incidence of disabling chronic illness in the rural population. The study will be based on plans developed by the Commission on Chronic Illness and will be carried out by Hunterdon Medical Center under the direction of Dr. Ray E. Trussell, Medical Center Director, with consultation from the Commission staff. The two studies of incidence of long term disabling illness, one in the rural community and another among city dwellers, should provide yardsticks, or means of developing them, for measuring the need for more facilities for care for the growing numbers of chronically ill people. Individual communities would then be able to measure their own needs for more hospital needs, home care programs, rehabilitation, and other community services for the chronically ill.

The FDA and House-to-House Selling

NOW that the Food and Drug Administration has settled the Mytinger & Casselberry case having to do with the sale of Nutrilite Food Supplement, they are exposing the reason why they indulged in such tactics that they were castigated for their actions by a decision of a three-judge Federal court in Washington, D. C. As we indicated while this case was in progress, the FDA wanted a decision against a firm selling medicinal preparations door-to-door so as to indicate their power of regulation over manufacturers or distributors employing this type of distribution. But soon after the case was adjudicated, the Federal Security Administration broadcast a release headed "FDA Warns of Health Hazard in House-to-House Sale of Medical and Diet Products." The release read in part:

"Serious danger to public health is inherent when house-to-house canvassers promote medical and nutritional products in the privacy of the home, Dr. Paul B. Dunbar, Commissioner of Food and Drugs, warned today.

"The danger arises, Dr. Dunbar said, because in a large number of homes there are undetected cases of serious disease. Ailing and uninformed people, who do not know what is the matter with them, are all too likely to be impressed by a persuasive sales talk and may consequently delay seeking competent medical advice until it is too late, Dr. Dunbar warned."

We fail to see by what right the Federal Security Administration through its subsidiary agency, the Food and Drug Administration condemns any particular method of distribution of goods in this country. So far as Dr. Dunbar's discussion concerning people with serious illnesses is concerned, this is nothing new, being merely the old out-moded, but still used attack on self-medication of a "false sense of security" being created by the taking of preparation when the condition is due to something other than the person realizes exists.

There will always be a very large number of people in this country, or in any other country, who will be suffering from a serious illness which may never be uncovered, or which may only be uncovered when it is too late to do anything about it. Anyone who reads all the advertising concerning early detection of cancer, tuberculosis, or other serious diseases must realize that this is true. Also, everyone must realize that highly intelligent people are daily succumbing to cases of these diseases which were discovered too late. The indication that this happens only to backward, uninformed people who are particularly gullible when salesmen call at the house, is totally unwarranted, and patently false.

We recall our very early days in Brooklyn when a representative of the Humphrey Medicine Company—an old fellow with whiskers—use to call at our home to sell his wares. Certain of these were always kept in stock at our house, and replacements were made on each call. There was no deception or lack of intelligence in these transactions, it was perfectly legitimate and proper business.

However, we are in full accord with the proposition that house-to-house sellers of medicinal or any other goods should bear the responsibility for the statements made by their direct agents. There is no valid reason why sellers of merchandise distributed in this way should reap the reward of misstatements and distribution of printed matter used as sales arguments by these agents, when such statements and printed matter would constitute misbranding if the goods were otherwise distributed.

In talking with a member of the staff of the Food and Drug Administration regarding the Mytinger & Casselberry case, we were told that the manufacturers in the drug industry "did not realize what these people were doing to them." In other words, the FDA would set up manufacturers using the retail channels of distribution against the manufacturers using the door-to-door method of distribution, and thus attempt to knock off the least powerful of them.

The Federal Security Administration is definitely opposed to self-medication in this country and will do everything possible to kill it. The preparation involved in this case, Nutrilite Food Supplement, is an excellently prepared, packaged, and labeled product consisting of multi-vitamin capsules of high potency and mineral tablets. The product is one which will definitely result in marked improvement in the case of people who are deficient in their vitamin and mineral intake. The fact that they are not sold through a drug store does not make them dangerous in any degree. There are innumerable people suffering "undetected cases of serious disease" who buy similar preparations from their druggists. Is not this just as dangerous? The answer of the Federal Security Administration probably would be "We will catch up with that later."

Attacks Unique Forms and Colors

TWO Cleveland drug manufacturing concerns who are forbidden by court order to sell Benzedrine and Dexetrine as the result of suits brought by Smith, Kline & French Laboratories charging imitation of their products, have filed suits against SKF charging illegal monopolization of the manufacture and sale of these two drugs. Lipston Drug & Sales Company and the Midwest Chemical Development Corporation charge in their suit that the SKF patents on Benzedrine and Dexetrine expired on September 27, 1949, and that the trade names became public property along with the products. SKF, they charge, changed the shape and color of its products and advertised the change to "pepetuate its dying patent monoploy."

It will be recalled that the SKF products have always carried the generic name of their products, amphetamine, in addition to the trade-marks in order to protect the trade-marks. The change in shape and color was made to distinguish the products of their manufacture which are dispensed only on prescription, and are not in the original container when so dispensed. Suits have been brought against manufacturers of the drugs who made them in the distinctive shape and color adopted by SKF because this made possible the substitution on prescription of drugs other than of SKF manufacture, when SKF goods were prescribed.

Cosmetic Tax Action

SO FAR as the fight to at least keep the Federal taxes on cosmetics within bounds is concerned, the House Ways and Means Committee voted last month to completely eliminate the 20 per cent excise tax on cosmetics used professionally by beauty and barber shops in rendering services. The committee rejected, largely through the efforts of certain shampoo manufacturers, the Treasury Department proposal to impose a 20 per cent tax on shampoos containing more than five per cent of saponaceous material. In addition, the committee approved the elimination of the 20 per cent cosmetic tax on baby oils, lotions, and powders. The decision of the committee to eliminate the tax on cosmetics used in beauty shops, and to eliminate the

tax on baby preparations, are actions to reduce the amount of taxes paid by the cosmetic industry. The decision to drop the tax on soap shampoos is merely a decision to drop a newly proposed tax.

Mothersill's "Rules the Waves"

"THE Pill That Rules The Waves" is the title of an article on Mothersill's Seasick Remedy, in the April 15th issue of Maclean's Magazine, published in Canada. The Mothersill Remedy Company, Limited, of Montreal, is the firm that owns this product, which is manufactured in this country by Strong Cobb & Co., in Canada by Parke, Davis & Co., Ltd., and to a smaller extent in England and France. The active ingredient is hyoscine—1/400 grain per dose—which depresses the nerve centers in the brain so that sensations which would normally give rise to vomiting are suppressed, and has a dampening effect on nerve impulses coming from the internal ear. The user becomes unaware that his organs of balance are upset and thus does not suffer the seasickness this upset would ordinarily cause. It also soothes the nerves and reduces tension, preventing the development of excess fluids in the stomach—normally the direct cause of vomiting.

The formula was discovered in 1903 by Dr. Claude Edward Fortin, at that time medical adviser to the Reid-Newfoundland Railway, a job that called for frequent boat trips between Halifax and St. John's, and a trip to Newfoundland usually sent him to bed. Dr. Fortin suspended a chair from the ceiling of his office and after putting a man in it, he twisted and spun it around. U. S. and Canadian doctors used a similar method in their seasick experiments during the last war.

The product was named afer Thomas Barton Mothersill, a drug salesman well known to the drug trade throughout Canada who was one of the shareholders and directors of the first company to manufacture a seasick remedy. One May 17, 1907 the name of the company was changed to Mothersill Remedy Company and since that time the signature, "T. B. Mothersill" has appeared on the label of every package of the product.

Over the years the formula has twice been slightly changed, but essentially it remains the same, the company—constantly abreast of the lastest developments in the motion-sickness field—has found nothing better than hyoscine. Several other derivatives of belladonna, as well as some of the barbiturates, have been used in remedies for both seasickness and airsickness, and recently some of the new antihistaminic drugs have been publicized as remedies for motion sickness. But experiments with the three types of remedies by U. S. Army, Navy, and Air Force medical men have shown that hyoscine remains the most generally effective. An almost tasteless drug, it is effective in 95 cases out of 100. Normally, its only undesirable reaction is occasional dryness of the throat, while with a few people it has no effect; in a small percentage of others it causes dizziness and blurring of the vision.

Today there are eight companies competing with Mothersill's, but the original product is far and away the best seller. Several of the competing products contain hyoscine and are almost identical in formula. Much of the credit for the strong position of Mothersill's belongs to "a canny duo of drug tycoons" who entered the story of Mothersill's on January 9, 1925. That day James G. Stenhouse of Montreal, and Ferdinand T. Hopkins of New York bought out the original shareholders—with one exception, a Mrs. K. Dawes, owner of one share. Both Hopkins and Stenhouse have been in the drug business all their lives. At 71, President Hopkins is a big, rotund, energetic man with a shiny bald pate and several million dollars who controls a string of patent medicine companies in the U. S. and Canada. One of these is D. Watson & Co., which manufactures, among other items, Montier's Elixir ("It gives you that zest for life"), and Gray's Syrup of Red Spruce Gum, which is 18 per cent alcohol and has a rather horrible taste. Hopkins admits this is entirely intentional: "People ain't got no faith in a medicine unless it tastes godawful." Halifax-born Stenhouse, vice-president and treasurer, is a tall bushy-haired, 66-year-old Montrealer who looks like an older Arthur Godfrey. Until his retirement last year he was president of the Bristol-Myers Co. of Canada.

Under the guidance of these two men Mothersill's has invaded nearly every country in the world, including Tibet. Once a group of archaeologists wrote to ask if Mothersill's would prevent nausea brought on by riding a camel. The partners rented two camels from a circus and hired a group of persons susceptible to motion sickness to ride while munching Mothersill's. The tests were successful and since then experienced camel riders have been Mothersill users. Another time a pogo-sticker wanted to know if Mothersill's would help overcome the nausea he suffered from indulging in this sport. The partners ordered a pogo stick, conducted tests, and announced that Mothersill's would do the trick.

Today, although Mothersill's Seasick Remedy (three doses for 75 cents) is sold and used for air travel, the company also puts out a three dose package of Mothersill's Airsick remedy, also for 75 cents. The only difference is that the Airsick Remedy works faster. All told more than 7 million capsules are sold each year on a money-back guarantee which the company scrupulously adheres to. Last year world-wide refunds totaled $23.22. It costs 98 cents to make the 12 doses of Mothersill's that sell for $3. The company's biggest single expense is advertising, on which it spends 40 per cent of its gross revenue.

Drug Pricing Plans

MANUFACTURERS of drug products were assurred of getting specially tailored price regulations in a message to the recent meeting of the Proprietary Association from Michael V. Di Salle, director, Office of Price Stabilization. Mr. Di Salle said "that when meeting with the Proprietary Drug Manufacturers' Industry Advisory Committee, his office would consider old OPA MPR 392 as a possible basis for formulating new tailored regulations for the entire drug manufacturing industry. We will similarly obtain the advice of the pharmaceutical drug manufacturers at the meeting of their industry advisory committee in regard to the proposed regulation.

"In response to the representations of the drug manufacturing industry, the control of manufacturers' prices was left under the general ceiling price regulation instead of being placed under the Manufacturers' General Ceiling Price Regulation CPR 22, pending the writing of the tailored regulation for the industry. Meanwhile, GOR 10, has been issued pertaining to individual hardship cases. Under this regulation, firms operating at a loss are permitted to adjust ceiling prices where full compliance has been made with the provisions of this regulation."

H. I. F. Increases Board

INCREASING the number of Directors to 32, the Health Information Foundation recently elected to the board Justin Dart, president, Rexall Drug Company; Joseph Fistere, president, Mallinckrodt Chemical Works; Homer C. Fritsch, executive vice-president, Parke, Davis & Co.; Harry Hoyt, president, Carter Products Co.; D. Mead Johnson, executive vice-president, Mead Johnson & Company; J. P. Remensnyder, president, Heyden Chemical Corp.

Other members of the board are L. D. Barney, president, Hoffmann-LaRoche, Inc.; Walter R. Beardsley, president, Miles Laboratories; Francis Boyer, executive vice-president, Smith, Kline & French Laboratories; Lee H. Bristol, president, Bristol-Myers Co.; Alvin G. Brush, board chairman, American Home Products Corp.; Robert K. Cutter, president, Cutter Laboratories; John W. Dargavel, executive secretary, National Association of Retail Druggists; W. L. Dempsey, president, Sharp & Dohme; Farleigh S. Dickinson Jr., president, Becton, Dickinson & Co.; Howard B. Fonda, senior vice-president, Burroughs, Wellcome & Co.; Leslie D. Harrop, vice-president, the Upjohn Company; James Hill Jr., president Sterling Drug; James J. Kerrigan, president, Merck & Co.; Dr. W. G. Malcolm, vice-president and general manager, Lederle Laboratories Division, American Cyanamid Co.; Foster G. McGaw, president, American Hospital Supply Corp.; John E. McKeen, president, Chas. Pfizer & Co.; Carleton H. Palmer, board chairman, E. R. Squibb & Sons; S. Barksdale Penick, board chairman, S. B. Penick & Co.; E. S. Retter, vice-president, Eli Lilly & Co.; Merle A. Sanders, president, Snyder's Drug Stores; John G. Searle, president, G. D. Searle & Co.; George F. Smith, president, Johnson & Johnson; F. J. Solon; vice-president, Owens-Illinois Glass Co.; George Van Gorder, president, McKesson & Robbins; Dr. Ernest H. Volwiler, president, Abbott Laboratories; Edward T. T. Williams, president, the Lambert Company.

Fragrance Foundation Program

THE Fragrance Foundation recently decided by a unamimous vote of its Board of Directors to admit retailers into membership of this non-profit organization established to further the use of fragrance products such as perfumes, colognes, toilet waters, and the like. In making this announcement at the second annual meeting of the foundation, retiring President Oscar Kolin, vice-president of Helena Rubinstein, said: "This decision was made because the retailer and the manufacturer, as well as suppliers of essential oils and packages, have exactly the same objectives—to increase business in fragrance products." He said further "that the entire fragrance industry and stores must work harmoniously together for their mutual benefit."

Retailer membership dues have been set at $50, and every store which becomes a member will be permitted to advertise and promote the fact that it holds such membership. In addition, the Foundation intends to bring out an educational booklet on the background, use and care of all fragrance products, such booklet being for distribution to consumers through the retailer members. In the near future, the Foundation plans to give suggestions to retailer members for window displays, counter displays and probably for store-wide promotional tie-ins with fragrance. The Foundation will continue to carry on its extensive public relations campaign which, during the past year, was so successful that there was a total linage of 7 million lines in newspapers alone, and a combined circulation of consumer magazines and newspapers of close to two billion. Radio, television and trade publications gave all-out support. Counter Points, the monthly educational bulletin which goes out to salesgirls, will be distributed in even greater quantities than the current 20,000 figure.

Feminized by Hormone

JOHN STEPNOWSKI, a Bayonne chemical worker has entered suit for $450,000 against Specific Pharmaceuticals, Inc., because he claims that his job has changed him from a man to a woman. Stepnowski, who wants $300,000 for himself and $150,000 for his wife, Mary, charges that he was "poisoned by a substance which brought about effemination, or transformation of his gender from masculine to feminine and, as a result, has been rendered impotent." He said he inhaled particles of stilbesterole.

F. T. C. "Default Orders"

IN AN EFFORT to expedite the disposition of cases which come before it, the Federal Trade Commission has amended its rules to provide for entry of what it calls "default orders" in uncontested cases. Provision is also made for formal complaints issued by the Commission to be accompanied by a proposed or "provisionary" cease and desist order. The Commission further states that unless the respondent files an answer within a specified time and appears at the hearing to show cause why the provisionary order should not be issued, the trial examiner and the Commission shall be deemed authorized, without further notice to the respondent, to find the facts, and the provisionary order will be issued without further proceedings. If the respondent contests the proceedings, then the provisionary order "shall be without effect." Therefore, a failure to file an answer shall be considered as a waiving of rights by the respondent, and an order appropriate in the opinion of the Commission will be issued.

Dr. Nelson Looks at Drug Manufacturers

"THE genius of your industry lies, I believe, in its capacity to give development on a practical basis to ideas for which it has not as a rule been initially responsible," Dr. Erwin E. Nelson, Medical Director of the Food and Drug Administration, recently told the members of the American Pharmaceutical Manufacturers Association. "It is development, not research, which is your strong point. This is not said in any sense of criticism. I believe the situation will continue. Investigation in academic institutions is not restricted by any considerations of immediate utility. But in industry—certainly in much of it—success in research and development is measured by output of salable products. If you believe in an expanding economy in the American way, you must recognize an expanding need for ideas, which it seems to me means expanding support for those who may produce ideas, wherever they may be working. I repeat, the above comments on industry versus academic research are not meant as criticism. I do have a criticism to offer, however. To use an expression coined for a different use, there is too much 'me-too-ism' at the present time. There are too many barbiturates, antispasmodics, antihistamines, antacids, pressor agents. Too often the claimed advantages are imaginary. Too often extent of use goes to effective detailing, not to any superiority."

THE COSMETIC CODE

By Hugo Mock

Under the date of May 10, 1951, the Federal Trade Commission published what appears to be its final draft of the Trade Practice Rules for the Cosmetic Toilet Preparations Industry. However, the following Notice appears with the rules: "These Rules have NOT been promulgated by the Commission. They, and the Statement preceding them, are in the amended form as recommended by the Bureau of Industry Cooperation and presently under consideration by the Commission for promulgation." Because the real controversy concerning the rules has been with respect to demonstrators, advertising, and other allowances and services given to customers, as well as concerning Push Money, or P.M.s, Mr. Mock devotes his discussion to these subjects. Also we reproduce the paragraphs in the rules having to do with these matters.

III. Prohibited Advertising or Promotional Allowances, Etc. It is an unfair trade practice for any member of the industry engaged in commerce 1/ to pay or contract for the payment of advertising or promotional allowances or any other thing of value to or for the benefit of a customer of such member in the course of such commerce as compensation or in consideration for any services or facilities furnished by or through such customer in connection with the processing, handling, sale, or offering for sale of any products or commodities manufactured, sold, or offered for sale by such member, unless such payment or consideration is available on proportionally equal terms to all other customers competing in the distribution of such products or commodities.

IV. Prohibited Discriminatory Services or Facilities. It is an unfair trade practice for any member of the industry to discriminate in favor of one purchaser against another purchaser or purchasers of a commodity bought for resale, with or without processing, by contracting to furnish or furnishing, or by contributing to the furnishing of, any services or facilities connected with the processing, handling, sale, or offering for sale of such commodity so purchased upon terms not accorded to all purchasers on proportionally equal terms.

VII. The following is presented for the purpose of clarifying the requirements of Paragraphs III and IV of this Rule 1 with respect to the supplying of marketing services, facilities or allowances by industry members to their customers, but it is not intended to imply by such presentation that other methods which assure of proportional equality of treatment of competing customers may not also be used.

An industry member may simultaneously offer to each of his customers competing in the resale of his products the same kind of promotional service, facility or allowance of a cost value equal to a uniform percentage of the sales (or purchases) of the industry member's products by each customer during a specified and identical period of time; provided, however, that when the service, facility or allowance offered is of a type which under reasonable terms and conditions is not usable or suitable to the facilities and business of all customers, and is offered to any one customer, the member offer each of those customers to whom the service, facility or allowance is not usable or suitable an alternate type of promotional service, facility or allowance which is of equivalent measurable cost, is usable by the customer, and is suitable to his facilities and business, and promptly inform all competing customers of the kind and amount of services, facilities or allowances which he has offered to each and the respective terms and conditions under which such services, facilities or allowances are to be furnished by the industry member; and provided, further, that when the offer of any service, facility or allowance to any customer is conditioned on such customer supplying some reciprocal service, facility or payment, a reciprocal service, facility or payment be required in the offers to all other customers and there be an equality of ratio among all customers as to the measurable cost of that which is supplied by the industry member and the reciprocal service, facility or payment required of any customer. The industry member must take every reasonable precaution to see that services, facilities or allowances which he furnishes to customers are used in accord with the terms of his offer and upon failure of the customer to perform any obligation on his part the industry member must cease supplying the customer any further service, facility or allowance.

(EXPLANATORY ANALYSIS: In other words, one, but not the only method of complying with Paragraphs III and IV of Rule 1, is as follows:

The industry member may offer simultaneously, -

To each competing resale customer the same kind of

1. Promotional service, or
2. Facility, or
3. Allowance,

The value of which must be equal to a uniform percentage of dollar value of

1. The sales to each,
2. Computed during an identical period of specified time.

However, if the same kind is not usable and suitable under reasonable terms and conditions to all customers, and is offered to one,

The others must be offered an alternate type of

1. Promotional service, or
2. Facility, or

3. Allowance, and

The alternate type must be

1. Of equivalent measurable cost, and
2. Usable and suitable, and
3. All competing customers promptly and fully informed of -

   (a) The kind,
   (b) The amount,
   (c) Terms and conditions of the offer.

ALSO: When the offer is conditioned upon something reciprocal to be furnished by the customer, the member must require of all customers

1. The same proportionate reciprocity (equality of ratio as to the measurable cost of that supplied by the customer to that supplied by the member),

2. Take every reasonable precaution to see that what the member pays or furnishes is used in accordance with the terms of his offer, and

3. When it is not, to cease furnishing or paying it to the customer.)

RULE 18 - "SPIFFS," "PUSH MONEY," ETC.

It is an unfair trade practice for any member of the industry, directly or indirectly, to give, pay, or contract to pay, to any clerk or salesperson of any customer-dealer handling two or more competitive brands of merchandise, "push money," "spiffs," or any other bonus, gratuity, or payment, as an inducement or encouragement to push or promote the sale of such member's product or products over competing products of other members in the industry,

(a) with the capacity and tendency or effect of thereby causing the purchasing or consuming public, when making purchases of such products, to be misled or deceived into the erroneous belief that such clerk or salesperson is free from any such special interest or influence, or is not so subsidized or paid by such member; or

(b) with the capacity and tendency or effect of thereby hampering and unduly restricting the legitimate, free, and full use and enjoyment of such retail trade outlets for the distribution to the public of competing products; or

(c) with the purpose or effect, directly or indirectly, of otherwise substantially lessening competition or unreasonably restraining trade in the marketing of the products of the industry; or

(d) with the effect of thereby bringing about the granting of an illegally discriminatory service, payment, or price contrary to Section 2 of the Clayton Act as amended by the Act of Congress approved June 19, 1936, known as the Robinson-Patman Act.

THE long awaited cosmetic code has now been published and as far as the straight jacket of the Robinson-Patman law will permit, it is a sincere attempt to interpret the Robinson-Patman law to permit compliance with the same with as little injury as possible to the manufacturer.

The Commission has seen fit in the promulgation of these trade practice rules where any service, facility or allowance is made to a customer to permit alternate or substitute types of service, facility or allowance where it is impossible for all customers to use the same type of service, facility or allowance. This is an interpretation of the term "proportionately equal basis" which will permit the manufacturer to provide alternate services or the like where it is impossible to provide identical services for all customers.

On the vexed question of demonstrator service, it is apparent that in the majority of cases, a customer who is competing with the other customers of the manufacturer who are using demonstrators, and who is unable to use demonstrator service, under the wording of the code is entitled to an alternate type of promotional service, facility or allowance.

At the risk of oversimplification, if a demonstrator costs a manufacturer 15 per cent of sales, the customer unable to use demonstrators is entitled either to a 15 per cent extra discount or its equivalent in some other service, facility or allowance. The crux of the entire matter is—is the manufacturer on a careful reading of the code entitled to a reciprocal service on the part of the customer corresponding to the additional payment by the manufacturer? *(Continued on page 810)*

AMMONIATED DENTIFRICES A

SINCE the introduction of the ammoniated dentifrices some years ago, a definite pattern on the utility of these products is beginning to take shape. The problem of tooth decay still remains unsolved because of the complexities involved in pathological erosion of teeth. The oral environment is probably the most complex situation of symbiosis and antibiosis that can be found. And until the causative agent, or perhaps a class of causative agents, is uncovered and defined, we can only attempt to unravel the problem a strand at a time, in the hope that some strand may lead to the core of the problem.

The causes and control of tooth decay have, of course, been of intensive interest for many years. Caries is not only the most prevalent disease of man but it is also one of the few diseases that effect man's economics, health and appearance. The disfigurement of tooth decay is a permanent one and it is fortunate that the operative skill of dentistry in repairing the ravages of this disease has attained such tremendous skill. Certainly some of the orthodontic and prosthodontic techniques of today represent the ultimate in the distillate of skill and technology acquired from art and science.

There are presently two main schools of thought concerning the causes of tooth decay. These represent the "acidogenic" and "proteolytic" theories. The acidogenic theory dates from the latter 19th Century when Miller[9] published his definitive articles on acidogenesis by oral bacteria. This "acidogenic" theory holds that ingested carbohydrate foods are converted into acid by the oral bacteria. Where this ingested carbohydrate is retained in the mouth as food debris, it is held in prolonged contact with the tooth surface. If oral hygiene is deficient, a tenacious slimy film of bacteria and mucin forms on the teeth, either as a complete or discontinuous film. This tooth film or plaque also absorbs carbohydrate and, since it is composed of glycolytic bacteria, the carbohydrate is rapidly degraded into acidic metabolites. Since this plaque is firmly adherent to the tooth surface, the acid metabolities are, also, held in close contact with the tooth enamel. These acids have a solvent action on the enamel and eventually erode a pathway for the hordes of bacterial secondary invaders. Thus the carious lesion is initiated and expanded.

A newer theory of the cause of tooth decay is that it is a disease of proteolytic origin. The proponents of this theory feel that, since the tooth enamel is not a contiguous surface, but rather a protein matrix into which enamel prisms are set,

ES AND THE CARIES PROBLEM

By Rudolph A. Steindler

the probability is that the protein matrix is attacked by the proteolytic bacteria of the oral environment. This proteolysis causes a disintegration of the enamel matrix and the loosened enamel rods are displaced. Thus, too, can the pathway for secondary invasion be prepared.

But while the cause of caries is still obscured by the complexities of influencing factors, many prophylactic measures have been proposed. Some of these have stood the test of time and have served as signposts for the solution to this problem. Other prophylactic measures have been shown to be of doubtful value.

Four groups of prophylactic measures have been recommended from time to time. These are: (1) dietary measures, (2) systemic therapeutic measures, (3) local therapeutic measures and (4) therapeutic dentifrices.

The dietary measures have, of course, run the gamut of recommendations. However, none has withstood the trail of time except for that one which places a restriction on refined carbohydrate intake. Today, there is little doubt that refined carbohydrates do influence some link in the chain that initiates enamel caries. Other dietary measures, such as vitamin supplementation, calcium supplementation and various foods, have not withstood the critical evaluation of time.

Of the systemic therapeutic measures, probably the most important is the fluoridation of water supplies. The fluoride content of teeth has been shown to influence caries incidence and the fluoridation of public water supplies has been widely heralded. However, a few discordant notes have been heard and fluoridation has been described as uneconomic and unsatisfactory. One objection to universal fluoridation has been that since the American people are such medical faddists, it is certainly not inconceivable that vitamins, minerals, anti-cold compounds, ad nauseum, could be proposed for dietary supplementation via public water supplies.

Local therapeutic measures include the application of chemical substances (to the surface of the teeth) designed to alter the permeability of the tooth structure or the solubility of the enamel. Zinc and other salts have been used to reduce the tooth permeability but the technique has not withstood the clinical trials. Topical application of sodium fluoride solutions has been claimed to reduce the enamel solubility. There have been several reports to indicate that topical application of sodium fluoride does favorably affect the caries rate of children.

Another local therapeutic measure is, of course, the tooth brush which, by its mechanical action, stimulates the local

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Carleton H. Palmer re-elected President ADMA

ADMA

RE-ELECTING Carleton H. Palmer, Chairman of the Board of E. R. Squibb & Sons, to the presidency of the American Drug Manufacturers' Association adopted a resolution which changes the number and possible time of service of its executives. The president of the Association is limited to two years of service in that position. The number of vice-presidents is increased from three to four, and these vice-presidents are not numbered, but are merely set down in alphabetical order. A vice-president cannot serve more than two years, but after an interim of one year, he may serve in that capacity again. The number of additional members of the Executive Committee is increased from seven to nine. However, no member of the Executive Committee can serve more than two successive terms of three years each. After an interim of one year, he may be re-elected.

The four vice-presidents elected are: Robert K. Cutter, Cutter Laboratories, Berkeley, Calif.; A. H. Fiske, Eli Lilly & Co., Indianapolis; Donald S. Gilmore, The Upjohn Company, Kalamazoo; George F. Smith, Johnson & Johnson, New Brunswick, N. J.

The nine additional members of the Executive Committee are: Three year terms, James J. Kerrigan, Merck & Co., Rahway, N. J.; H. J. Loynd, Parke, Davis & Co., Detroit; Ernest H. Volwiler, Abbott Laboratories, North Chicago, Ill. Two-year terms: James C. Chilcott, Chilcott Laboratories, Division the Maltine Company, Morris Plains, N. J.; W. L. Dempsey, Sharp & Dohme, Philadelphia; Theodore G. Klumpp, Winthrop-Stearns, New York. One-year terms: Francis Boyer, Smith, Kline & French Laboratories, Philadelphia; J. H. Fitzgerald Dunning, Hynson, Westcott & Dunning, Baltimore; Weed G. Malcolm, Lederle Laboratories.

Due to illness, President Palmer could not be present at the meeting. First vice-president Donald S. Gilmore presided at the first session, second vice-president A. H. Fiske presided at the second session, and Mr. Gilmore presided at the third session. In his presidential report, read by James C. Chilcott, Mr. Palmer dwelt on international undertanding which, he said, "instead of improving is actually deteriorating," adding: "Critical, even hostile feelings toward this country are being expressed increasingly by groups both in Europe and Latin America. Our prosperity is resented. Our institutions are misrepresented. Our ways are distorted. Our methods are misunderstood. Our motives are suspect."

Mr. Palmer stressed that drug manufacturers are bringing scientists, students, and physicians to this country to learn our methods. "And while they are learning the methods of our industry," he said, "they are learning to understand something about America which propaganda can never teach them. We are convinced that when these men, as well as men from our foreign subsidiaries, come here and learn to know us more intimately, they return to their own countries as missionaries of a better understanding with America.

Executive vice-president Carson P. Frailey spoke of the mobilization program and stressed that there is an important distinction between the imposition of temporary controls because of a national emergency, and expansion of permanent regulatory controls, saying: "We must always keep this difference before the mobilization control officials who are concerned with the problems of our industry. We must be constantly vigilant to make certain that they propose and put into effect only those controls which are required in the interest of mobilization—we must guard against the use of the mobilization program as a means of achieving any long-range "reform" objectives.

"On the other hand, as long as they are actually related to the emergency and are clearly understood to be temporary in nature, mobilization control measures merit our sympathetic understanding and fullest possible support. Reserving our right to disagree and to press our disagreement through democratic processes, we nevertheless should make every effort to adjust our operations within the framework of the required control measures."

Karl Bambach, assistant executive vice-president, also spoke on controls in the present emergency, but in a more specific manner, saying in part:

"The National Production Authority is responsible for the flow of practically all industrial supplies and manufactured articles. It controls raw materials, packaging supplies, and equipment. From the standpoint of practical functions, it corresponds to the old War Production Board. The NPA has authorized a single priority rating, called the DO, or Defense Order. With a few exceptions, this priority may be applied to insure preferential delivery of products only to the government. An important exception concerns supplies for maintenance or repair. Here a manufacturer or other individual may use a DO rating to speed up delivery of necessary materials.

"Recent events indicate that the present priority system is not adequate. In the early days of World War II, under similar circumstances, the priority system was expanded. It became more complicated and at the same time more confusing and less effective.

"Profiting by World War II experience, the present thinking in Washington is to avoid extension of the priority system. An attempt is being made to solve the problem by means of allocation. For instance, the basic allocation procedure for drugs and chemicals, which worked well during World War II, has recently been reactivated by NPA, but has thus far been applied to only a few chemicals. The Controlled Materials Plan is also being resurrected. It will probably be applied to steel, copper, and aluminum, and may be placed in operation by July.

"Production controls of one kind or another are in force at present on a large group of metals, including steel, aluminum, copper, zinc, tin, lead, and bismuth. Rubber is completely controlled by the government. A few chemicals, such as sulfuric acid, benzol and DDT, are under detailed regulation. Finally, collapsible tubes and tin containers are limited to certain uses and quantities.

"Member firms have encountered occasional difficulties in obtaining adequate supplies of stainless steel, aluminum for tear-off caps, and some other metals. Bismuth compounds for pharmceutical use are somewhat limited. Even the relatively small amount of rubber needed for stoppers is the subject of frequent discussions. The National Production Authority has been able to afford relief in almost every intance of threatened shortage. The essential nature of our industry to the nation's health and welfare is well-recognized throughout the government. In that respect, we are in a fortunate position, and can feel confident that the vital needs of the pharmaceutical industry will be met in the future.

"The regulation of exports has continued in some degree since the early days of World War II. At present, licenses must be obtained for all exports to destinations behind the Iron Curtain; and for antibiotics, sulfa drugs, and biological products, even when going to many friendly countries."

Leslie D. Harrop, of the Upjohn Company, and general counsel of the Association, reported for the Legislative Committee. He dwelt at considerable length on the proposed general antibiotic certification amendment to the Federal Food, Drug, and Cosmetic Act, giving a complete history of the steps taken by the industry to work out such an amendment with the Food and Drug Administration, saying in conclusion:

"Passage of time is dulling any willingness on the part of the industry to extend further the practice of drug control by certification. This became quite evident recently when our sister association—the

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SPRAY ANTI PERSPIRANTS

By Harry Hilfer

THE recent advent of antiperspirant preparations applied as a spray has further proved that the consumer is as much interested in the ease of application of a product as she is in its efficacy. Liquid solutions for antiperspirant use are not new. They were among the first of the antiperspirants to appear on the market. Aluminum salts were the most commonly used agencies for antiperspirants and their efficacy apparently depends on the degree of ionization of the salt used.

Since the salts themselves have a relatively low pH in solutions, there was a certain amount of irritation resulting among some consumers because of their use. There was in addition a certain amount of fabric destruction because of the acid ions released on hydrolysis. Further ramifications were therefore introduced to overcome these defects until at present it is possible to formulate an antiperspirant preparation which approaches the absolute goal of effective antiperspiration combined with a minimum of irritation and fabric destruction. The basic points mentioned are applicable to antiperspirants in both liquid and cream vehicles.

The creams which are still enjoying their popularity, enjoy their success because of their greater ease of application as compared to the old liquid in conjunction with which the user had to use an improvised applicator. When one manufacturer, not too long ago, placed on the market a liquid which was used to saturate felt applicators—and the preparation sold as such—he enjoyed a good measure of success, chiefly because of the greater convenience of application afforded by his product. We now come to the newer types where the solution containing the antiperspirant is packaged in a polyethylene bottle equipped with a small orifice which causes a spray to be emitted with quick pressure. Here the consumer may choose between the different methods of applying the liquid on the one hand and applications of a cream on the other. In order to evaluate the two types of products from their application and ultimate efficiency a discussion of their characteristics would be in order.

The antiperspirant cream is essentially a solution of aluminum salts in water, which is further treated with emulsifying agents and other lipoids to form a cream. This is rather a complex colloidal state and therefore subject to certain phenomena not apparent in some solutions. One characteristic mentioned in the literature is the tendency on the part of the aluminum salt

to cause a certain amount of hydrolysis to take place in some esters normally used and to further react to form aluminum soaps plus free acid. This may further be correlated to the observations of some workers where a lower pH was observed in the aqueous phase of the cream than in the cream in toto. This condition may be offset to a considerable degree by proper incorporation of buffering agents, but by comparison, it does not exist in a solution where the esters are not present and it may further explain why the cream may not behave as well after being on the shelf for a year as compared to it when freshly made.

Another source of trouble with the cream lies in its possible careless use by the consumer. For example, if too heavy an application is made and it is not subsequently rubbed in properly a good sized film may adhere to the clothing and as is often the case, if the clothing is ironed without previous washing, the sedimentary film may prove difficult to remove. This type of complaint cannot be blamed on the product, but it is mentioned because it is a possibility that occurs too frequently and over which the manufacturer can exert no control.

Application of the liquid type of antiperspirant would seem to answer both these objections, if the application is free from mechanical faults and if the consumer learns to use the preparation properly. In the use of the spray bottle, for example, unless pressure is applied in quick jerks the spray may turn into a steady stream, which would also be undesirable, since the liquid so applied would flow down the user's side. This may be considered a minor example but is no less important than improper application of the cream. Under any circumstances a certain period of self education must be undertaken by the consumer so that not only proper handling may be learned but also the proper amount of the spray necessary for efficiency as well as comfort.

The formulation of the spray type of deodorant does not pose as many problems as does the cream. Because of the nature of the container, where evaporation is possible only through a small orifice, there is not nearly as great a drying out problem as there is in the cream. There is the further advantage of formulating a solution rather than an emulsion and therefore the elimination of problems inherent in any emulsion manufacture. The problem therefore involves the proper choice of effective agency, proper perfuming without precipitation of the essential oils and the addition of the correct amount of alcohol to promote faster drying of the sprayed film after application. Further ramifications may be incorporated to suit the individual desires of the manufacturer but the basic properties of a spray antiperspirant are controlled by the factors named. These further ramifications would include easy spreading of the film after application and effective penetration to the skin if there should be axillary hair present. This is best accomplished by incorporation of a wetting agent which would enhance this property. In addition, such an addition would be of value in dispensing the essential oils throughout the solution.

In the formulation of these properties the choice of aluminum salt is of greatest importance. The two salts in greatest use are the sulfate and the chloride, both of which are capable of good activity with the greater amount in the chloride. However, when used by themselves both these substances exhibit marked destruction towards fabrics and must therefore be buffered properly. The use of buffers in conjunction with antiperspirants is covered by a multitude of patents and must therefore be checked against possible infringement. Urea is perhaps the best known of these agencies and is in rather extensive use in creams. The use of aluminum chlorohydrate—a complex aluminum hydroxy chloride molecule—is rather extensive in the spray deodorants because of its easy solubility in both water and alcohol and because it is possessed of rather a high pH. There is a patent covering the use of this material as an antiperspirant in certain specific applications, and the manufacturer should check it closely, but used in solution it makes a highly desirable agency for use as a spray solution. It may be used in conjunction with water and alcohol mixtures as opposed to sulfates in general and theoretically at least there is no need for further addition of a buffer. From the standpoint of production ease, it is therefore a good material to use. The usual concentration is at about the 15-20 per cent level and in that area it appears to do an excellent job. It may be used with any of a number of surface active agencies and lends itself towards their easy incorporation.

It is not the intent of this article to recommend the use of aluminum chlorohydrate over other aluminum salts. Aluminum sulfate, properly buffered is capable of carrying out the same function, but care must be exercised in the amount of alcohol used and in the buffer added. Aluminum chloride has all the solubility characteristics desired, but proper buffering is also important here.

Perfume oil incorporation may be accomplished as stated above by the amount of alcohol added or by the introduction of a solubilizing agency having dispensing properties. This latter may be chosen from among a long list of available materials including nonionic, anionic and cationic agencies. A proper choice would be dependent on the characteristics desired—though it would be best to keep foaming tendencies at a minimum. Additions of alcohol would help in that connection. The use of a quaternary ammonium compound would also introduce a bacteriostatic agency which would help deodorize the applied area before the aluminum salts themselves complete the perspiration stopping. Many workers in the field feel that a bacteriostatic agency is necessary as an ad-

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PROPRIETARY MEETING

LUPTON PATTEN RE-ELECTED PRESIDENT OF PROPRIETARY ASSN.

RE-ELECTING its officers to serve a second time, the Proprietary Association increased its board of directors from nine to twelve. Lupton Patten, of the Chattanooga Medicine Co., Chattanooga, Tenn., was re-elected president; E. T. T. Williams, of the Lambert Company, was re-elected first vice-president; S. M. Rising, of the Guild Company, was re-elected second vice-president; and F. E. Rathburn, of the Olive Tablet Company, was re-elected third vice-president. Elected to a three year term on the board of directors were: Henry P. Bristol, of Bristol-Myers Company; W. F. La Porte, Whitehall Pharmacal Company; James Hill, Jr., Sterling Drug, Inc.; and Walter Beardsley, Miles Laboratories. Stanley I. Clark, Sterling Drug, Inc., was elected to a two-year term on the board, and Stanley Probst, of the Maryland Pharmacal Company, was elected to a one-year term. Those already on the board with two years to serve are: H. H. Hoyt, J. H. Grove, and J. B. Braun. Those with one year to serve are: George S. McMillan, Alvin G. Brush, and Lunsford Richardson.

Association Counsel James F. Hoge spoke at length on the Durham-Humphrey Bill saying:

"This Durham-Humphrey Bill has no kinship with the antecedents of the present law except the original Tugwell Bill. And it exceeds that bill in its grasp for power. The Tugwell Bill contained no grant of bureaucratic power as wide in scope and far-reaching in effect and implication as that in the Durham-Humphrey Bill. The existing law accords no power—in part or in whole—comparable to that which would be granted to the Federal Security Administrator under this bill as now formed.

"The intensity with which the Food and Drug Administration supports it attests to the extensiveness of the grant. Under the exercise of it, growing, expanding and out-reaching as the years and the Administrators come and go, the drug industry, the practice of medicine and the practice of pharmacy would come increasingly under the control of the Food and Drug Administration.

"This over-all control would be the natural concom-

itant of this power. As you appraise it, you must remember that it applies not only to new drugs but to old drugs. All drugs now on the market would be subject to review and reclassification. Then you must remember that, in addition, and as to new drugs, there is the so-called 'new drug provision' of Section 505 whereby no 'new drug' shall be introduced into interstate commerce until it has met the approval of the Food and Drug Administration as to safety. The new drug section is limited to safety, whereas this new power would apply not only to safety but to effectiveness.

"We should remember also the power which the law now provides with respect to Government certification of antibiotics and the desire of the Government to have that control expanded so as to be automatically applicable to new antibiotics as they are discovered. Add the proposed power of this bill to the 'new drug' regulation, the certification of antibiotics and the general regulatory provisions of existing law, and the manufacture, labeling and distribution of drug products would be under almost complete control of the Federal Security Administrator.

"In my own opinion, based upon experience, there is no doubt whatever that the Durham-Humphrey Bill, if enacted as now drawn, would increasingly restrict the right of self-medication. We do not have to speculate. Experience is our guide. That and the nature of this power are prophetic of it.

"You should note, also, that the bill would restrict to prescription sale any drug that the Administrator holds to be unsafe or ineffective without professional 'diagnosis'. You know that there is a substantial body of medical thought to the effect that the layman is not competent to diagnose for himself in anything. In our courts, for instance, rules of evidence frequently forbid a layman to testify as to what was the matter with him when he took a drug. So, before you reach the matter of professional supervision of the medication, the bill raises a high hurdle for you on diagnosis.

"The magnitude of the regulation is illustrated by considering what will be involved in dealing with drugs now on the market. Recall the law's definition of the word 'drug'. I am told by good authority that there are today approximately 30,000 drug items. Mr. Larrick, the Assistant Commissioner of Food and Drugs, in his testimony week before last said: 'There are literally thousands of different drug items on the market.'

"The three associations of manufacturers have proposed a compromise. They have recommended that the bill be revised to provide that drugs which are, in fact, unsafe for use except on prescription be labeled with a caution notice that they are not to be sold except on prescription. In other words, let the amendment of the law accord with the philosophy and pattern which now pertain to the labeling provisions of Section 502.

"This compromise suggestion illumines the picture. It confines the issue to one of ultimate power. That is to say, in restricting drugs to prescription shall the administrative agency have the power administratively to make such restriction with no relief to the industry except that limited relief of the so-called court review? Or, shall its power (as it is with respect to the provisions of Section 502) limited to instituting action wherein it bears the burden of proof and the adjudication is made in the first instance by the courts?

"This compromise proposal, simple in statement but deep in content, would apply in this connection the same principle which has been applied throughout the law: the principle of individual responsibility under stated requirements of the statute. Then the amendment would be—as the law has been—true to the underlying principle of a free society."

Speaking of extravagant advertising claims and of the revival of the old caravan, medicine show type of selling now being employed in only one or a very few instances, Dr. Frederick J. Cullen, executive vice-president of the association, said:

"It is only a minority group of the advertisers that uses bombastic statements, but they are made in such a manner that they attract the attention of the crusader and the 'do-gooder', some of whom would like to eliminate advertising altogether, as well as others who would like to prevent entirely the sale of products intended to be used in self-medication.

"It has been interesting to me to observe that the majority of those who use what might be termed highly extravagant advertising have their labels prepared in most instances in such a manner that the Food and Drug Administration does not have a justification for action against the product. Why?

"It has been stated that the courts are adopting a less tolerant attitude toward advertising. When you observe some of the types of copy that appear, what else can be expected?

"The advertising used by this extremely vocal group can only result in an attempt to secure more drastic control on the part of the Federal and State Governments.

"The drug industry is perhaps the most highly controlled industry in our land today, and every effort must be made to prevent further unwarranted restrictions and controls being placed upon the industry, merely for the purpose of attempting to stop a few offenders.

"Over the past several years I have advocated, and repeat it again, that it is my belief that manufacturers, advertising agencies and various types of media should cooperate in an effort to improve this unsatisfactory advertising picture resulting from the copy used by this fringe group. It seems to me that the media representatives, particularly, would be very interested in such a program, in view of the fact that one piece of bad advertising may in turn cause the public to look with suspicion on all other advertising carried by the same media. Such cooperation would be in the best interest of the consumer, and it would also be for the self-interest and preservation. It is a well-known fact that when a few in the proprietary drug field use what may be considered bad advertising, it adversely affects all others in the same field.

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MODERN BURN THERAPY

By Milton A. Lesser

ANY general discussion of the treatment of burns should be considered in the nature of a progress report. New methods and materials are constantly being tested and older techniques are being revised, all with the aim of improving results in burn therapy. Even though an ideal regimen for treating burns has not been attained, it is comforting to know that much progress has been made.

This is well evident from a consideration of the pertinent statistics. Pugh,[1] for example, states that in the Navy and Marine Corps, the case fatality rate of only 8.7 per cent for burns during World War II as compared to the case fatality rate of 22.9 per cent in World War I (a difference of 14.2 per cent) "is plainly indicative of an improvement in our methods of burn management." He also notes that figures provided by the Army closely parallel those of the Navy.

Studies made by the Metropolitan Life Insurance Company[2] show that deaths from burns have also decreased among the civilian population. Their data show that 40 years ago, the loss of life through scalds or burns was seven times as high as it is today. Indeed,

as recently as from 1936 to 1940, the average death rate was double last year's figure.

In addition many people who would formerly have died from extensive burns can now be saved. Thus, until 1941, it was accepted that a person was doomed if his burn involved 50 per cent or more of the body surface. At present, a burn of 70 per cent need not be fatal, and the records show the successful treatment of cases which involved even larger surface areas.[3,4]

Nonetheless, burns and scalds still claim about 4,600 lives each year in this country. In addition, many thousands suffer serious and disfiguring, though non-fatal, injuries.[2] Unfortunately, even these figures will fade into insignificance in the event of an atomic bomb attack. This is evident in the observation[5] that burns were believed to be responsible for more than half the fatal casualties and probably at least three-quarters of all the casualties at Hiroshima and Nagasaki.

Significant, too, is the recent statement by Evans[6] that in the event of an atomic attack on any large American city, burn casualties "in the thousands" should be expected. Thus, according to Kogel,[7] those in New York City must be prepared to treat and care for a minimum of 35,000 to 40,000 burn cases in an air or ground burst of an atom bomb. The burns caused by an atomic explosion may be of the flame or of the flash type. However, the first-aid treatment of both types of burn is the same.[8]

The treatment of burns is largely determined by their depth. Thus, by the modern classification, burns are now considered as being either first, second or third degree. Briefly, a first-degree burn produces reddening of the skin; a second-degree burn involves the deep layers of the skin; and a third-degree burn destroys all the layers of the skin and any or all deeper structures.[9] In more detail, the first-degree burn is characterized by mild damage resulting only in vascular dilatation, localized edema and tenderness. In the second-degree burn deeper damage causes blebs of the epidermis, in addition to the visibly dilated, but functioning, vascular bed. Third-degree burns are those involving the full-thickness of the skin. The full-thickness wound is usually coagulated, sometimes charred, but seldom blebbed, and there is no visible circulation.[10]

In addition to degree, the cause of the burn (e.g. thermal, chemical or electrical) will somewhat influence the treatment. However, it is realized[11] that the treatment of all burns should have the following aims: (a) to relieve the pain which follows the accident, and avoid pain later; (b) to prevent the onset of shock and, if the condition develops to steer the patient through it by carefully controlled fluid replacement; (c) to prevent and control infection; (d) to ensure regeneration or replacement of skin as early as possible; (e) to avoid or diminish metabolic disturbances resulting from injury, fever, or anemia; (f) to encourage normal functioning of the injured parts and to maintain the patient's morale; and (g) by secondary repair or "plastic" operations to correct any defect or deformity which remains or appears after healing is complete. Put more concisely, the main objectives of effective burn treatment are to preserve life, to prevent complications and to minimize deformities.[4]

Of course, many of these measures apply only to the treatment of severe burns. Thus, shock is not encountered in small burns and all that is required is local care. It must be remembered, however, that although superficial burns can be effectively treated with a simple dressing of some bland ointment, there is always the danger that the severity of the burn will be underestimated.

The modern trend in the formulation of ointments for the treatment of superficial burns is in the direction of simplicity. Occasionally, it is desirable to impart certain qualities, such as a local anesthetic effect, to such a preparation. Thus, an anesthetic burn cream can be made from:[12]

Anhydrous lanolin	30 parts
Vegetable oil	33 "
Spermaceti	10 "
Isobutyl *p*-aminobenzoate	2 "
Water	25 "

Melt the fatty ingredients in a water bath and dissolve therein the isobutyl *p*-aminobenzoate. Add the water last, previously warmed to approximately the temperature of the water bath. Add the water in divided portions with thorough agitation until completely incorporated.

Well worth considering at this point are the potentialities of the aerosol or pressure propelled products. As noted in Shepherd's[13] indicative discussion, products of this sort were being studied for use in the treatment of minor burns. In such a preparation, the propellent itself contributes a cooling, anesthetic effect, while the therapeutic agents incorporated in it serve to promote healing and to prevent infection and scarring. More recently, Shepherd[14] reported the development of such a product by L. A. Greenberg, of the Laboratory of Applied Physiology at Yale University. In collaboration with dermatologist, R. L. Parker, this investigator is making a clinical evaluation of the new product. Their data indicate that the aerosol self-dispensing method offers an effective approach to the treatment of burns. As was pointed out in a previous review,[15] application of a medicament to a burn or other wound by the aerosol method avoids the trauma and possible contamination associated with normally applied dressings and drugs.

The pain of the more severe burn generally requires more than a local anesthetic. Although a proper dressing is said[16] to do more to relieve pain in the long run, morphine injections are often necessary. Noting that the administration of morphine is the generally accepted treatment of choice, Martin[17] states that fear and hysteria, which augment pain, are best treated by the repeated intravenous injection of a barbiturate. According to Crain,[18] an adequate dose of morphine

(*Continued on page 812*)

Joseph Keho, Re-elected
President of TGA

TGA MEETING

"THIS industry has always been an alert and progressive one with an increase in volume practically every year since records have been available," said Toilet Goods Association President Joseph Keho, of Dorothy Gray, Ltd., in addressing the annual convention of the T. G. A. last month. "Statistics show that we grew rapidly through the period of the Second World War and it is logical to assume that we face a period of opportunity for greater growth in the years just ahead—opportunity with obstacles! In coping with these obstacles, individually and collectively, we must keep our quality high, through research we must bring out new and better products. Look at the record of the drug industry where some companies are enjoying as much as 80 per cent of their tremendous volume on products that did not exist ten years ago. We must keep our advertising standards high as well as aggressive. We must find ways to keep the women of America informed and interested. The re-armament program has only started. There are now 17,300,000 women employed, an increase of 8 per cent over a year ago and 17 per cent over four years ago. Every one of these women knows that her face is her fortune. Let us be sure if and when we are forced to use substitutes, the substitutes are good ones.

(Continued on page 822)

PRIZES AWARDED AT FIRST CECIL SMITH MEMORIAL GOLF TOURNAMENT—MAY 14, 1951

Cecil Smith Memorial Trophy:	**Harold Green**
1st Low Gross:	**S. Goldstone**
2nd Low Gross:	**John Nicholson**
3rd Low Gross:	**Joe Feldman**
2nd Low Net:	**S. Safir**
3rd Low Net:	**D. R. Brown**
4th Low Net:	**H. L. Brooks**
5th Low Net:	**Mr. Buzz Heagy**
6th Low Net:	**Peter Forsman**
7th Low Net:	**F. D. Parker**
8th Low Net:	**W. A Jones**
9th Low Net:	**Al Jenkins**
10th Low Net:	**Al Berentz**
11th Low Net:	**Don Bryant**
12th Low Net:	**Russell Boland**
13th Low Net:	**J. Dingwald**
14th Low Net:	**W. Klaas**
15th Low Net:	**H. R. Milton**
16th Low Net:	**E. T. O'Grady**
17th Low Net:	**Charles Pennock**
18th Low Net:	**J. I. Poses**
19th Low Net:	**Charles Junod**
20th Low Net:	**Fred Webster**
21st Low Net:	**Bert Ressler**
22nd Low Net:	**Paul H. Douglas**
23rd Low Net:	**W. Johnston**
24th Low Net:	**R. R. Kitchen**
25th Low Net:	**A. L. Lindsay**
26th Low Net:	**W. Merritt**
27th Low Net:	**C. V. R. Thompson**
Longest Drive:	**H. R. Miller**
Nearest Pin:	**Charles Glendenning**

Photos Courtesy the Upjohn Company

THE NEW UPJOHN PLANT

(*The Plant*)

EXCEPT for antibiotics, which are produced in a multi-story structure required to accommodate complex processing equipment, and an adrenal cortex production unit which has been isolated in a small explosion-proof structure to cope with difficult operation conditions, all manufacturing activities and storage in the new plant of the Upjohn Company, placed in full operation late last month, are now housed on one floor in a large building 870 by 1125 feet. Production operations are concentrated in a 360 foot wide air-conditioned section through the center of the building, where the use of 80 foot roof trusses with 40 foot carrying trusses has made it possible to provide large areas of unobstructed floor space. Clearance of 14 feet has been maintained in all operating departments, where acoustical tile and continuous troffer lighting have been incorporated in a suspended ceiling of new and revolutionary design.

Since all of the service piping and power distribution facilities have been hung from the ceiling of a full service basement underneath the production floor, these areas are entirely free of overhead service lines. Instead, piping and conduit are brought up by short lines through the first floor slab, directly to the points where they are needed. Approximately 25,000 knock-out pipe sleeves provided in the floor slab make it possible to rearrange or install additional production and packaging equipment, as needed, without creating any disturbance or dirt on the manufacturing floor.

All of the air-conditioning has been installed above the acoustical ceiling on reinforced concrete platforms supported by welded H-section roof trusses. Because of the wide range of operating conditions and the necessity for maintaining precise control in so many different departments, 120 separate air-conditioning systems were required, of which 75 are in the central manufacturing area truss space.

These range from simple comfort cooling units serving the service areas and production offices to highly complex combinations in which ultra-violet germicidal lamps, chemical dehumidifiers and electrostatic precipitators, have been combined with other basic equipment to meet demand for sterile and favorable manufacturing conditions, maximum fluctuations of two degrees in temperature, and humidity ranges between 10 and 50 per cent. Approximately 100,000 lineal feet of duct work was installed to move all the air, which is handled through 2,377 supply and exhaust outlets at a rate of 2,810,000 cu. ft. per minute. Conditioned air is supplied to the plant at a rate of more than 1,220,000 cu. ft. per minute.

The manufacturing area is flanked on one side by a large raw material warehouse and on the other by a large finished goods warehouse, each with an enclosed railroad siding and numerous truck loading docks. The arrangement of these facilities with respect to the manufacturing area provides for progressive flow of

(*Continued on page 790*)

(*The Products*)

THE Upjohn Company manufactures no fewer than 700 products, almost every type of pharmaceutical being represented in its catalog with the exception of vaccines and sera. The company is a leading manufacturer of chemotherapeutic agents, both antibiotic and sulfa products, and markets a long list of penicillin, streptomycin, bacitracin, and sulfa preparations. Upjohn is also producing experimental quantities of neomycin, recent clinical tests indicating that it will prove useful as a topical application in combating surface infections caused by germs unaffected by other antibiotics, although it appears too toxic to be employed by parenteral injection in tuberculosis and other diseases requiring long treatment.

Upjohn is the world's chief producer of adrenal cortical extracts. Other hormones include male and female hormones, progesterone or pregnancy hormone, posterior pituitary extract, and epinephrine.

Upjohn was one of the pharmaceutical firms that processed blood plasma for the armed forces during the war. Studies by the U. S. Public Health Service have shown that the virus responsible for transfusion jaundice, a troublesome and sometimes fatal complication of transfusions, can be eliminated from plasma by ultraviolet irradiation. The Upjohn plasma processing unit is equipped with a novel type of ultraviolet apparatus combining high speed with rigid control to guarantee that literally every drop receives the required exposure.

Pharmaceutical manufacturers have long been attracted by the possibility of using beef bone gelatin, an easily available raw material, in medicine. Upjohn chemists have succeeded in employing this material to produce Plazmoid, a blood plasma substitute, and a sponge used to halt bleeding.

Plazmoid is designed to save lives in accidents and following surgery by preventing and treating shock. Neither Plazmoid nor any of the several other blood plasma substitutes now under test takes the place of plasma or whole blood in regular medical practice. Plazmoid, however, is effective in restoring normal blood volume, the key to preventing wound or surgical shock. In addition, Plazmoid can be made in very large amounts; it keeps well and is more easily handled than plasma or whole blood. Thus, it is well adapted to emergency use at the scene of an accident or in the operating room—a vital consideration, since seconds count in dealing with shock, and many patients who might be saved now die because of transfusion delays. The value of Plazmoid in the event of a catastrophe, atomic or other, is incalculable.

Upjohn's other beef gelatin product is Gelfoam, a glistening white, porous, spongelike material with two valuable properties. It absorbs several times its own

(*Continued on page 790*)

US AUTOMATIC MACHINE

Counts and fills up to 360,000 tablets or pills per hour

The tablets or pills are counted by means of mechanical counting wheels with unfailing accuracy; correct count is a mechanical certainty. The tablets drop into the containers individually, thus keeping dusting and breakage at a minimum. If the tablets go into the machine whole, they come out whole.

★ The Model TBS fills any count, odd or even, of pills and tablets, coated and uncoated, and some types of capsules, into bottles, cartons, boxes and other rigid containers.

★ Produces speeds of from 60 to 150 filled containers per minute on counts of 12 to 100. Proportionately lower speeds on higher count containers.

★ Is available equipped with 4, 6, 8 or 10 filling chutes, to suit individual volume and speed requirements.

Model TBS, Straight Line, Fully Automatic

Model TBS, **US Automatic Tablet and Pill Filling Machines** are designed for high speed, fully automatic counting and filling of tablets and pills and some types of capsules.

Equipped for straight line delivery of containers to and from filling stations, labor costs are reduced to an absolute minimum and packaging made into a single line, completely automatic operation.

Available with many modifications, the machine is ideal either for large volume, maximum production, speed packaging of a few products or for packaging many different shapes and sizes of pills and tablets in a wide range of containers.

Always fast and accurate, the entire machine is functionally designed for versatile yet fool-proof and economical operation.

Write today for complete details.

SIMPLE, FAST, CHANGE-OVERS

Change-overs in count, container or product can be made easily and speedily, by the use of quickly interchangeable units. Following are typical change-over times:

Change of count .... 5 to 10 min.
Change of container..10 to 15 min.
**Change of product* ..20 to 30 min.

*(Indicated time applies to change in size or shape of product, includes cleaning of machine, preferably by vacuum, and will vary with conditions.)

US

NET & GROSS WEIGHING ★ PACKAGE FORMING & FILLING ★ CARTON SEALING, LINING, WRAPPING ★ BOX MAKING

AUTOMATIC BOX MACHINERY CO., INC.

Owning and Operating NATIONAL PACKAGING MACHINERY CO. ★ CARTONING MACHINERY CORP.

45 ARBORETUM ROAD, ROSLINDALE, BOSTON 31, MASS.

Branch Offices: New York ★ Cleveland ★ Chicago

PACKAGING AND SELLING

DRUGGISTS' COSMETIC SALES

One of the questions asked at the recent panel on distribution at the Toilet Goods Association Convention was whether druggists have been securing an increasing share of the cosmetic business at the expense of department stores.

In a number of large cities, according to newspaper panels conducted on the Milwaukee plan, there has been evidence of a slight increase in consumer shopping in drug stores for toiletries and cosmetics and a slight decrease in department stores. Percentagewise, this change amounted to only a few points. If this change has any significance, it probably means nothing more than the fact that these same panels show, over the course of the last ten years, that department stores benefited to an unusual degree during the war and immediately following and that drug stores suffered in their relative position in cosmetic sales to quite a considerable degree.

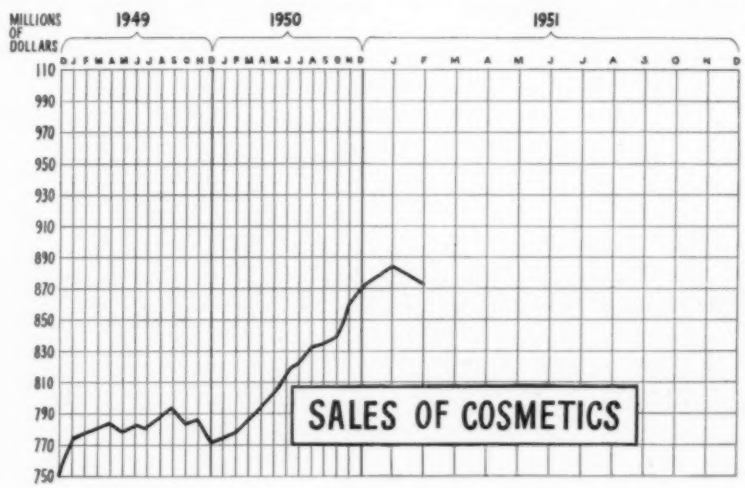
As everyone in the industry knows, there was almost a universal movement on the part of cosmetic manufacturers in the highest price brackets to trade up and as shortages and other restrictions affected their supply of products, a large majority unduly favored the department store with the hope of entrenching their company and their brand in these desirable outlets in the postwar period.

Now the department stores do not have that relative advantage of being on the preference list for short supplies, it is natural that the more alert and better merchandisers of cosmetics among the independent druggists would recover their lost ground.

Unfortunately, over the entire range of the independent drug store group, there is no perceptible sign that an increasing number from this group are stepping up into the ranks of specialists in perfume and cosmetic sales and putting themselves, their store and their department into a good competitive position with a local department store.

So far as the independent drug store goes, the ability to do a good competitive job in selling perfumes, cosmetics and toiletries, except the heavily advertised utility products, is still a specialization of the few.

Retail sales of cosmetics for the twelve months ended with February 1951 totaled $873,629,000. This compares with $884,302,000 for the twelve months ended with January 1951 and with $775,661,000 for the twelve months ended with February 1950.



Vacations

The estimate for expenditures by Americans on vacations this year is a total of around $12,000,000,000. Of course, this money primarily goes for transportation, food and board. The cosmetic business gets a trifling few thousand dollars on cosmetic kits.

It would seem that any market of $12,000,000,000 ought to be worth a very thorough market study pointing toward product, packages and promotions. Travel kits and first aid kits ought to be included in every vacation store display.

Four out of Five Disturbed

Down in Atlanta at a meeting of the Visual Merchandising Guild there was quite a discussion regarding the value of "disturbing elements as an essential part of point of sales display." This is somewhat along the line of the advertising agency who has for years promoted "the Interrupting Idea" as an essential part of an advertisement.

According to these folks, in many cases the disturbing factor may be a deliberately planned and studied element of bad taste such as a combination of bold colors or unpleasant design, or it might be by some kind of gimmick. Another example cited showed the picture of a shapely girl bucking the rain and half hidden by a three dimensional folding umbrella. Four out of five customers lifted the umbrella to see the rest of the girl retailers report.

There are innumerable ways of shocking people to attention. While the disturbing element is undoubtedly an attention getter, it takes a good advertising man to make sure that the customer's attention is not shocked away from the product for sale.

The Handiest Bottle Ever Made!
Manufactured Under Pat. No. 2,515,093
Other Patents Pending
ELMER E. MILLS CORPORATION'S
Polyethylene
Plastic Bottle
This is *the* bottle with consumer appeals so strong they actually help sell your product!
It's unbreakable—a powerful consumer selling point on safety and thriftiness.
It's lightweight—takes up less space (and incidentally cuts your shipping cost).
It's a "squeeze bottle"—can be readily adapted to use as a stream—as a spray—as a sprinkler finish.
Our stock bottle is available in 1—2—4—8 ounce sizes. Through a special printing process we can print your label or design right on the bottle.
In addition to the production of this stock bottle and stock closure, we also custom make other thermoplastic bottles, closures and atomizers. You can depend upon their being made with the same high standards of craftsmanship which keynote all Mills plastic products.
For more information on our custom molding service, or for a free sample bottle, write us or our sales agent today.
ELMER E. MILLS CORPORATION
2930 N. Ashland Ave., Chicago 13, Illinois
Sales Agent: W. BRAUN & COMPANY
Chicago, 300 N. Canal St. New York, 595 Fifth Ave.

Stecker Paper Box Co., Detroit—1st. Award
Cosmetics Box for Beauty Counselors, Inc.

F. N. Burt Co., Inc., Buffalo—2nd. Award
Aquamarine Bath Powder For Revlon Products

Paper Box Competition

The National Paper Box Manufacturers Association held its 33rd annual convention at Haddon Hall in Atlantic City from June 3 to 6. One of the highlights of the meeting was the exhibition of about 1100 paper boxes—manufactured by members of the association—which had been entered in the 1951 Set-Up Paper Box Competition held in April at the Association-Competition Headquarters in Philadelphia.

Sixty-seven of the 1100 exhibits received plaques and scrolls representing First, Second, and Honorable Mention awards. Of these 67 winners, seven were in the drug and cosmetic fields. The awards, which had been chosen earlier in April, were judged on the basis of twenty-three End Use classifications, in addition to Best Artistic Design, Superiority of Construction, and Best Display Box. The End Use categories were judged on the purpose of the set-up box as required by the particular product, such as, protection of the product, appropriateness of the package, brand identification, convenience, economy, and sales appeal.

First Awards were presented to Walter P. Miller Co., Inc., Phila., honoring a blood plasma box made for Sharp & Dohme, Inc. and to Stecker Paper Box Co., Detroit, honoring a cosmetics box made for Beauty Counselors, Inc. On the lid of the blood plasma box are directions for administering normal human blood plasma, with accompanying photographs. Labels on each side of the box serve the double function of identifying the contents and sealing the carton. The cosmetics box was awarded a first prize for the maximum shipping protection offered the containing creams, lotions and powders packed in sixteen separate compartments. The box is given feminine appeal, according to the judges, by the exterior color, pink with gold letters, which is carried through on all inside lids, labels, plastic containers and powder box.

Second Awards were presented to United Paper Box Co., San Francisco, on behalf of a "tooth brush and gum massagers" package manufactured for the Denticator Co.; to the Mason Box Co., Attleboro Falls, Mass., on behalf of a mailing box manufactured for Sharp & Dohme; and to the F. N. Burt Co., Inc., Buffalo, for Aquamarine Bath Powder manufactured for Revlon Products Corp. The perforated neck insert in the tooth brush set-up box was said to allow maximum display of colorful tooth brushes and gum massagers, while the acetate tubes afford maximum protection for the individual items. Brand identification appears on each item. The Sharp & Dohme mailing box was chosen because of the white lettering and sketches which identified the firm. A carton of caligesic ointment is set securely in a platform inside along with directions. Wires on both sides of the box hold the lid firmly in place. Winning features of the aquamarine bath powder include the box color which matches the product name, the aqua-

United Paper Box Co.—2nd. Award
Manufactured for the Denticator Co.

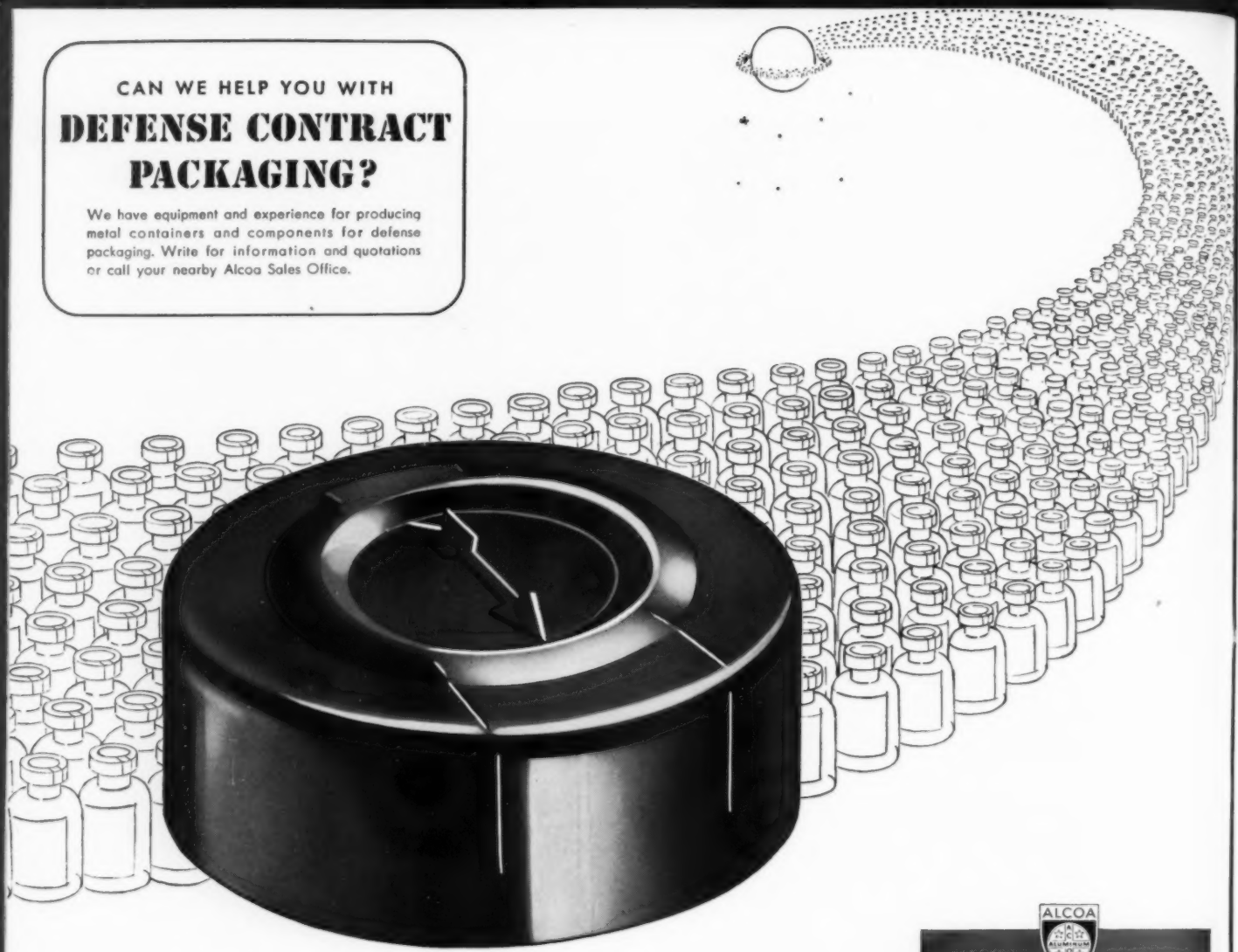
W. C. Ritchie & Co.—Hon. Mention
Manufactured for Helena Rubinstein

Walter P. Miller Co., Inc.—1st. Award
Manufactured for Sharp & Dohme, Inc.

CAN WE HELP YOU WITH

DEFENSE CONTRACT PACKAGING?

We have equipment and experience for producing metal containers and components for defense packaging. Write for information and quotations or call your nearby Alcoa Sales Office.



Millions and millions of reasons for specifying...

ALCOA
ALUMINUM

ALCOA STERICAPS

FORMERLY SOLD AS ALSECO SEALS

Many millions of Alcoa Stericaps have served leading pharmaceutical houses since these Alcoa Closures were introduced 12 years ago. Most widely used closure of its type, the Alcoa Stericap guards your product three ways:

1. tamperproof seal immediately reveals meddling.
2. cover cap prevents superficial contamination after opening.
3. inner ferrule seals contents securely—insures sterility until the last cc is used.

ALCOA GOLDY CLOSURES

provide perfect protection for your "one-shot" package. Resist rust and corrosion in any atmosphere, can't jar loose, can always be opened easily by tearing off the slotted tab. Ideal for small food and medical packages.

ALUMINUM COMPANY OF AMERICA • 1702F GULF BUILDING • PITTSBURGH 19, PENNA.

marine pyroxylin-coated paper with white lettering which gives the box a high quality appearance, and the aquamarine grosgrain ribbon with which the lid may be raised.

Honorable Mention Awards were presented to W. C. Ritchie & Co., Chicago, on behalf of the White Magnolia Body Powder Box manufactured for Helena Rubenstein, and to Congress Paper Box Co., Chicago, for the Choo Choo Soap Box (not illustrated), manufactured for Roycemore Toiletries, Inc. The powder box was selected because of its economical construction, effective in display and function. The white lid has green printing denoting the product and firm name, while the gold band around the box is eye-catching.

Mason Box Co.—2nd. Award. Made for Sharp & Dohme, Inc.

Per Capita

Per capita of any kind are always interesting and are important in planning sales quotas. We have two or three times estimated and published per capita consumption by states of all of the cosmetic products coming under the excise tax classification. Here is the per capita food sales for 1950 for various sections of the country:

PER CAPITA FOOD SALES 1950

New England	$257
Middle Atlantic	$256
Pacific	$247
East North Central	$224
West North Central	$188
South Atlantic	$166
East South Central	$136
West South Central	$168
Mountain	$194

Go Get It

We are beginning to get a great deal of valuable factual material from the United States Census. One of the most interesting of the recent releases showed that the discretionary spending power in 1951 is 4 times that of 1940 and the suggestion that in 1955 this spending power can be six times that of 1940.

Our total disposable personal income after taxes was $85.7 billion in 1940. During this year our population used $49.2 billion of this for basic living costs, i.e., food, clothing and shelter. This means that $36.5 billion was available for other spending.

In 1951 disposable personal income should total over $215 billion even after a 25 per cent increase in personal taxes. Allowing for $100.7 billion for necessities, which would equal the cost of living increase and inflationary prices since 1940, this leaves $114.3 billion of discretionary buying power for purchasing goods over and above necessities.

Packaging Award

This year two cosmetic companies received the Charles S. Welch Memorial award for outstanding packages.

Tussy Cosmetiques award, which went to the Midnight lipstick-perfume combination, came under the classification of a package at a retail price of $1.00 or less. Gloria Van Fleet, Packaging Director of Tussy Cosmetiques, was the designer of this package.

Gourielli Inc. won the second award for "Hidden Treasure" in the class $1.00 and over at the retail price. "Hidden Treasure" is a bath powder box with a concealed drawer containing a miniature cocktail shaker bottle of Five O'Clock bath oil. Eric de Colb, Gourielli's art director, conceived and designed the package and Philip Libsom, Gourielli's purchasing agent participated in cooperation with suppliers in bringing this package to commercial existence.

How Much Franchise

A retail executive recently made a very challenging remark in the course of a speech. Said she, "Women are no longer loyal to any one store. They're loyal only to what you have."

A great many prominent retail merchants would argue violently with that statement. They're proud of their community reputation and standing and are thoroughly convinced that they have at least out of their total customers a nucleus of loyal clientele.

At the same time it has been a common experience of suburban shopping center developers, and their previous market research has also shown, that the majority of customers will quickly abandon an habitual place of shopping for another store which offers greater convenience or advantages.

We hear a great deal of talk and see a lot of advertising nowadays about the "consumer franchise" which manufacturers can obtain through advertis-

Department of Commerce Monthly Retail Trade Report

Retail sales of all kinds in drug and department stores showing sales for the month of March 1951 as compared with the same period in 1950.

	Department Stores	*Drug Stores*		*Department Stores*	*Drug Stores*
Atlanta	+27	+8	Minneapolis	+1	+7
Baltimore	+9	+10	Milwaukee	+11	+11
Birmingham	+8	+6	Newark	+11	X
Boston	+2	+15	New York	+6	+5
Chicago	+9	+8	Philadelphia	+9	+8
Cincinnati	+7	+6	Pittsburgh	+7	+21
Cleveland	+13	+22	Providence	+11	+10
Dallas	+11	+5	St. Louis	+3	X
Detroit	+21	+21	San Francisco	+12	+14
Los Angeles	+6	+16	Seattle	+15	+20

ing. But is this franchise which a manufacturer is supposed to be able to establish for his brand in a position of any greater security than the franchise which a successful retailer acquires over shopping habits in his community?

Why wouldn't it be just as sensible to say "Women are no longer loyal to any one brand. They are loyal only to the brands which are accessible, visible and convenient to purchase.

Sales Record?

The Fragrance Foundation is another group that conducted a panel at the Annual Convention of the Toilet Goods Association. One of the intriguing remarks made during the course of this very interesting panel was a comment by Max Knight, Divisional Merchandise Manager of the Walgreen Drug Stores, that this company had in their employ a salesgirl who has been averaging $100,000 a year in sales on perfumes and cosmetics. Last year this girl topped $113,000 and her commission check for the month of December substantially exceeded $1,000. These sales were made in a city which is not by any means one of the top cosmetic markets in America.

A sales record of this kind in a retail store and for products such as perfumes and cosmetics, which are so dependent upon personal selling at the retail counter, can open up a great deal of intriguing speculation. For one thing, we wonder what unusual advantages this girl has in her relation to the store and the company in being able to devote her time exclusively to profitable sales, perhaps to customer selection and perhaps in outside contacts, either socially, by telephone or by correspondence.

This sales woman according to Mr. Knight, made a surprisingly large number of sales which amounted to $25 or over. This means that the sale, instead of being directed to individual or specific products or to any specific need which made the woman enter the store, must have tapped to a very substantial degree, a wealth of unplanned purchases which lingered somewhere in this woman's mind. This sales woman, instead of supplying a specific or a known need, must have sold to the customer the desire for improved personal appearance in a broad sense and then converted her to a program of cosmetic treatment where the amount of money involved in the sale became a secondary consideration.

In various ways, through manufacturers and retailers, this industry is spending an enormous sum on retail sales education and training with results that are not too encouraging, so far as general retail opinion seems to go.

It would seem that where instances of this sort of conspicuous sales ability and conspicuous sales results appear, it would be very worth while indeed for the industry to make a detailed study of this case history to find out if the unusual conditions here can be applied more generally.

At least one conclusion is clear and that is that retail selling opens up plenty of opportunites for high income rewards for anyone who has conspicuous sales ability.

Super-Drugs

We have remarked before that anyone who would like to see this retail revolution that is going on, in all of its difficult aspects, will get the best and most complete picture by heading West and particularly toward the Southwest.

This has been especially true in the way super-markets here have been expanding into many different lines not related to food and in the way some of these departments are being developed to the fullest expression of a fine retail environment.

One of the really interesting examples of this is the way in which the Sylvan Drug Company of Oklahoma City have been opening up self-service drug stores in the Humpty-Dumpty Super-market Chain of the same city. These stores cover about 25,000 square feet each and are the largest in the state. The drug departments take up approximately 5,500 square feet in each store and are completely self-service, except for the cosmetic department and the tobacco department, which are serviced by licensed cosmeticians and experienced tobacco clerks. The entire operation in each store is staffed by a registered pharmacist and another experienced drug man.

The Cosmetic Bar which occupies a prominent position is beautifully furnished with white oak hard woods and lighted with mirrored floor cases. Many of the famous names in cosmetics and perfumes which adhere to selected distribution are represented in these stores.

Empress Molded Closures are available in jewel-bright colors —provide distinction for your product.

Flatter your package with a molded closure

A plastic closure by Owens-Illinois can be the crown that distinguishes your package.

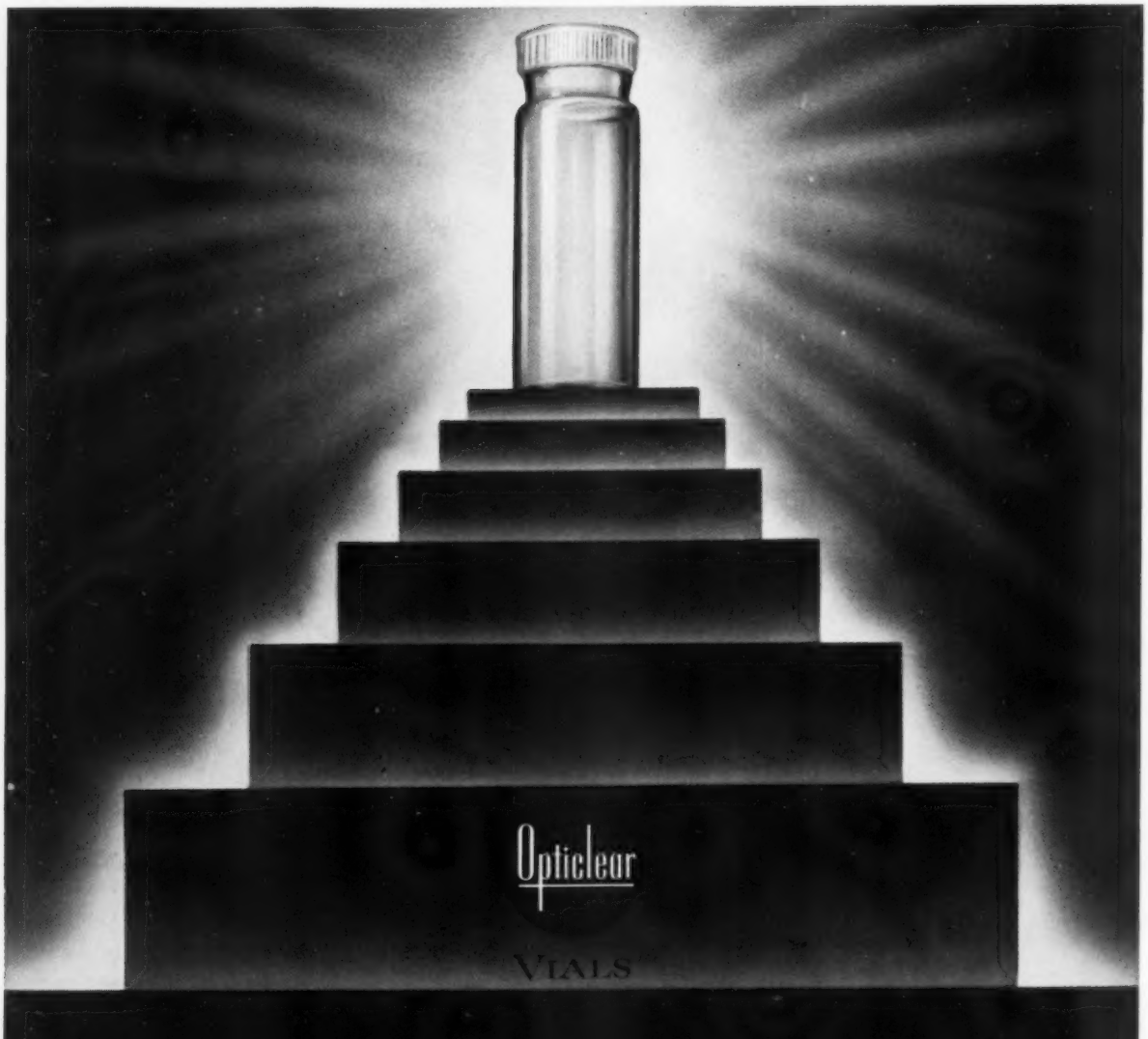
O-I molded closures are available in a wide range of smooth appealing colors to match or contrast with labels. They won't rust or corrode . . . are easy to apply and remove repeatedly . . give a positive seal and reseal.

Molded to exact specifications, private designed closures can be tailored to meet your most rigid production needs.

No matter what the market conditions may be, plan now to gear your package to the selling habit.

Closure Division — Owens-Illinois Glass Company

TOLEDO 1, OHIO • BRANCHES IN PRINCIPAL CITIES



Customers like the clean-cut, quality look of Opticlear Vials.

Packaging leadership swiftly won by KIMBLE OPTICLEAR VIALS

Once in a long, long while, it happens. A package appears with such dignity of design, such quality of materials, so efficient for its purpose, that it rapidly leaps to leadership.

Such a package is the Kimble Opticlear Vial. It is designed to be the most beautiful of vials. No clearer or more lustrous glass is used in any vial. The featherweight, translucent plastic stoppers make a tight seal with the Opticlear's tooled neck. *Contents remain virtually moisture-free even after repeated opening and resealing.*

Give your precious products the elegance and protection of the packaging leader, the Kimble Opticlear Vial. Write for full details.

KIMBLE GLASS TOLEDO 1, OHIO
Division of Owens-Illinois Glass Company

NEW PRODUCTS AND NEW PACKAGES

ABBOTT LABORATORIES announces the availability of Sucaryl Calcium Sweetening Solution, a liquid sweetener designed for use by diabetics and overweight people who must follow low-salt, as well as low-sugar, diets. It is a calcium form of Sucaryl, previously introduced as a sodium salt, in both tablet and liquid forms.

THE BOOTS PURE DRUG COMPANY (U. S. A.) LTD. introduced Blandlax, a new laxative, in New England last month. As an introductory offer, twelve packages were sold for the price of eleven.

BOTANY MILLS, INC. has redesigned its package of Botany Brand Pure Lanolin and has changed the color scheme from white on lavender to that of white on green, and green-on-yellow printing.

BUTY-WAVE PRODUCTS CO. is providing a new liquid shower soap and shampoo, Shower Spra, in an unbreakable Plaxpak polyethylene bottle equipped with a cord which can be fastened to shower nozzles. The bottles are standard 16-ounce type produced by Plax Corp.

CALUMET MANUFACTURING COMPANY is manufacturing a new combination brass and plastic lip brush in assorted colors and bristles. It is also producing a new streamliner plastic lipstick container that has been reduced to metal proportions, has a stabilized cup, and is guaranteed sweat proof.

CIBA PHARMACEUTICAL PRODUCTS, INC. has prepared pyribenzamine in solution for injection, meeting the needs of physicians for rapid and sustained antihistaminic activity. The effect from an injection of pyribenzamine is usually obtained in one to fifteen minutes and frequently persists for 12 to 18 hours.

No local reaction to pyribenzamine parenteral solution has been encountered, according to Ciba, even when intramuscular injections have been made repeatedly at the same site. General side effects such as drowsiness, general lassitude and nausea are occasionally observed but are seldom sufficiently severe for corrective therapy.

CYNTHIA ANDREWS, INC. have introduced Sing, a non-alkaline shampoo which is compatible with the hair and scalp, also non-alkaline. This new shampoo, it is claimed, does not fight the hair and scalp and does not produce a dulling film and dingy deposit as ordinary alkaline soaps and shampoos. Sing retails in drug and department stores at $1.19 for a 6-ounce bottle.

ENDO PRODUCTS INC. has released Vifort Capsules, a completely water-soluble polyvitamin preparation, through the wholesale drug houses. Formerly Vifort was prepared only as the aqueous polyvitamin solution for children. The capsules are indicated in pregnancy, lactation, in intestinal and liver diseases where vitamins are poorly absorbed, steatorrheic diseases, obesity, and other conditions.

They are supplied in bottles of 30, 100, and 250 capsules.

MAX FACTOR has introduced the following new "grooming essentials for men:" Shower Shampoo, a shampoo which prevents dryness, leaves the hair smoother, and conditions the hair and scalp; After Shave Lotion, which leaves the skin cool and refreshed, prevents roughness from close shaves, and can be used before or after shaving with electric razors; Cream Hair Dressing, a grease-free hair dressing that keeps the hair in place all day, giving it the right amount of sheen; Deodorant Cologne, a combination deodorant and cologne containing a masculine fragrance; and Lazy Shave, a compressed Talc to be used after shaving in order to make the first shave stay fresh longer.

RICHARD HUDNUT has developed Formula A-10 For Women, a new scalp treatment based on a dermatologist's prescription. It helps remove loose dandruff, prevent scalp disturbances created by fungi and bacteria, stimulate circulation, banish hair odor, and impart a healthy sheen to the air.

JAMCO COMPANY has prepared a new Dentammo ammoniated prophylactic tooth paste which contains dibasic ammoniated phosphate, urea carbamide, glycerine, and pumice.

LEDERLE LABORATORIES reports that its Veticillin Penicillin Ointment for Udder Infusion now contains 100,000 units of crystalline penicillin G potassium per 7.5 Gm. disposable tube.

THE NESTLE-LEMUR COMPANY has prepared Nestle Glo-Cream, a new type of hair cream, said to protect the hair color against sun bleaching and the drying effects of permanent wave lotions and hair dryers. It also helps the hair retain, for a longer period, the color from dyes, tints, and color rinses.

CHAS. PFIZER & CO., INC. has prepared Terramycin in veterinary dosage forms of three types: Terramycin Capsules, 250 mg. or 100 gm.; Terramycin Intravenous, in vials containing 500 mg. or 250 mg.; and Terramycin Topical Ointment, 1-ounce tubes containing 30 mg. per gm.

The capsules are for treatment of pneumonias, complications of distemper, ear infections, rhinitis, tonsillitis, infections of the upper respiratory track, urinary and intestinal infections. The intravenous form is for use when immediate blood levels are required, when oral therapy is not feasible, in infected wounds, peritonitis, and certain soft-tissue infections. The ointment is for treatment of post-surgical infections, skin infections, ear infections, infected wounds, abscesses, boils and furuncles.

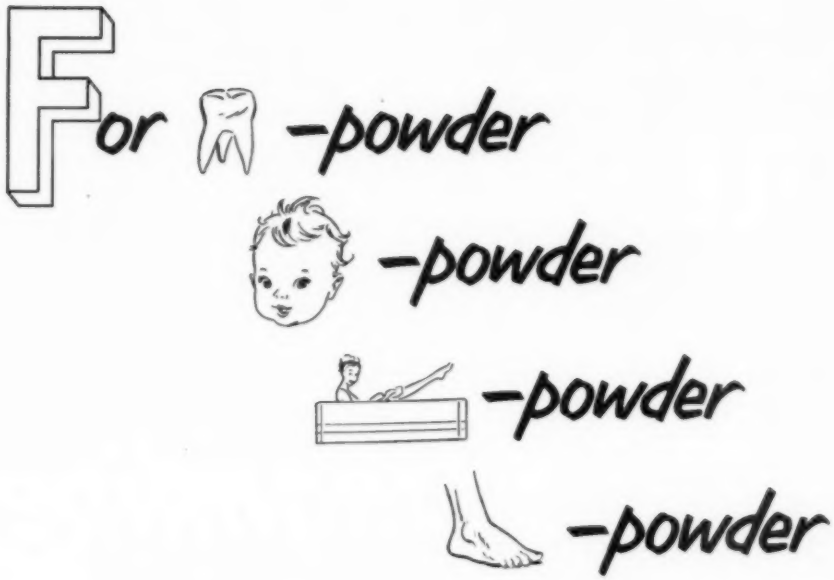
Last year
HEADLINERS
THE STILL POPULAR
"Cologne Stick Containers"
by RICHFORD

Are now 1951's
JOINED BY
TOP PACKAGING ATTRACTION
"The Purse Size Cologne Stick Container"
also by RICHFORD

IMMEDIATELY AVAILABLE
A. B48 PLAIN (polished brass top)
B. B48 FANCY (polished brass top)
(both hold 2½ oz. net)
C. B31 (polythene snap cap) (¾ oz. net.)
D. B32 (threaded pol. brass cap) (1 oz. net)

WRITE FOR SAMPLES

RICHFORD CORPORATION
251 FOURTH AVENUE • NEW YORK, N. Y.



there's nothing better than a Continental container

If you make a powder essential to personal cleanliness or daintiness, Continental is a name to know. We turn out powder cans in many sizes and shapes, and with all manner of dispensing heads. We're old hands at protecting the flavor, scent and efficacy of tooth powders and talcums, dental plate holders or cleaners or foot powders. And our lithographers are masters at decorating for sales appeal.

If it's a packaging problem —it's our baby!

CONTINENTAL CAN COMPANY

CONTINENTAL CAN BUILDING
100 East 42nd Street, New York 17, N. Y.

Eastern Division: 122 E. 42nd St., New York 17 | Central Division: 135 So. La Salle St., Chicago 3 | Pacific Division: Russ Building, San Francisco 4

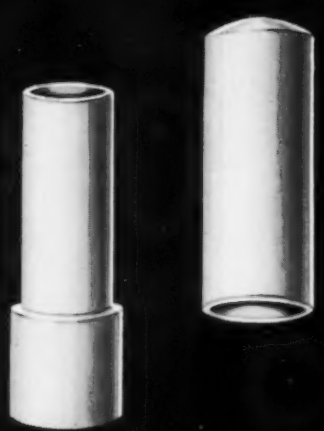
CALUMET

PRESENTS THE

NEW! Streamliner

THE ANSWER TO PLASTIC LIPSTICK CONTAINERS

NO LARGER THAN METAL
SWEATPROOF



AVAILABLE WITH .477
AND .500 CUPS

VELVET-SMOOTH SWIVEL ACTION

CALUMET MANUFACTURING CO., INC.

565 Fifth Avenue

Sam Schwartzman
President.

NEW YORK (17), N.Y.
MUrray Hill 8-4270

#1

Non-rolling, extra-depth, Bakelite cap; thick-flange rubber bulb; Saftee-ball glass.

#3

Regular plastic cap; thin flange rubber bulb; semi-blunt glass.

#4

Metal cap; oil-resistant Amekine synthetic rubber bulb (without strong odor); blunt glass.

New Modernistic bottle. Designed to lie flat for convenient labeling. Oval front provides ample label space.

New Perfection

DROPPING PARTS

Simplify Your Packaging Problem

The wide variety of sizes, styles and colors in New Perfection's complete line of dropping parts offers the answer to your packaging problem. Each component part is designed to present and administer your product in the most attractive, convenient manner. We supply dropping parts to fit your bottles or furnish the complete unit.

DROPPER GLASSES CAN BE CALIBRATED IN COLOR

An inexpensive extra that adds great convenience to the use of your preparation. The dosage you desire in the color you specify is accurately and permanently printed on the dropper glass. Trade-marks and firm names can also be imprinted.

#2

Non-rolling, extra-depth Bakelite cap; thick-flange rubber bulb; special bent glass, plain or CALIBRATED.

RUBBER BULBS are supplied in many styles and colors. Oil-resisting AMEKINE synthetic rubber is used for oil preparations; natural rubber is supplied for other products.

CAPS of plastic or metal can be furnished in a complete range of sizes and colors.

DROPPER GLASSES are available in a wide variety of styles and sizes; plain or CALIBRATED in any color to mark specific dosages.

BOTTLES in an attractive modernistic style in Amber, Blue, Green or Clear glass are available, with dropping parts, in the following sizes: 2 cc, ⅛, ¼, ½, 1 and 2 oz.

Write for Samples and Quotations

PENNSYLVANIA
GLASS PRODUCTS CO. INC.

"Glass Goods of the Better Kind"

430 N. CRAIG ST. • PITTSBURGH (13), PA., U.S.A.

Need Any of These?

If you need any of the pharmaceuticals shown (listed in the coupon), or would like special ones developed, inquire of Scovill . . . suppliers to the United States Government in every emergency since 1802.

In times like these, Scovill's Drug and Cosmetic Container Division has facilities to develop and fill vital demands.

SCOVILL-MADE *Containers*

A PRODUCT OF SCOVILL

SCOVILL MANUFACTURING COMPANY
Drug and Cosmetic Container Division
63 Mill Street, Waterbury 20, Conn.

Please send full details of your design and manufacturing facilities. I am interested in:

1 & 2 ☐	Serum Clamps	7 ☐	Pill or Vitamin Carrier
3 ☐	Ether Can Cap & Nozzle	8 ☐	Lip Pomade Container
4 ☐	Band Bail Assembly	9 ☐	Nasal Inhaler
5 ☐	Dispenser	10 ☐	Ethyl Chloride Container
6 ☐	Hypodermic Plunger Rod	11 ☐	Filter Drip Cap

My problem is none of the above, but .....

Name .....

Company .....

Address .....

City ..... Zone ..... State .....

SPRA-TAINER Does It Again!

The Tetco Company's COLD ReLIEF is a handy, safe, effective nose-and-throat medication and powerful vaporizer, all in one. COLD ReLIEF is pressure-dispensed . . . penetrates nasal passages thoroughly, medicates areas usually untouched by nose drops, inhalants, and ordinary atomizer preparations. Ideal for Hospitals —Sick Rooms—Nurseries! Perfectly safe for babies.

The pressurized container chosen for COLD ReLIEF is the original lightweight, low-cost propulsion can, Crown SPRA-TAINER with exclusive "No Side Seam—No Top Seam" construction and eye-appealing modern design.

Other Famous Tetco Products
Moth-O-Blitz and Insect-O-Blitz
In 6 oz. and 12 oz. Crown SPRA-TAINER

ALWAYS LOOK TO CROWN FOR LEADERSHIP IN CREATING AND MANUFACTURING FINE CANS FOR EVERY PURPOSE.

One of America's Largest Can Manufacturers

CROWN CAN

Division of

CROWN CORK & SEAL COMPANY

Plants at Philadelphia, Chicago, Orlando • Branch Offices: New York, Baltimore, Pittsburgh, St. Louis

GAIR

SHIPPING CONTAINERS

eliminate many hazards of shipping!

Gair Corrugated Containers are so scientifically constructed that they offer the utmost PROTECTION against the many hazards of shipping... truly amazing how they withstand tremendous knocking about and rough usage.

Without obligation Robert Gair offers a helping hand in solving shipping container problems.

WRITE TODAY for technical information.

*Reg. U. S. GAIR Pat. Off.

ROBERT GAIR COMPANY, INC.

155 EAST 44TH STREET, NEW YORK • TORONTO

PAPERBOARD • FOLDING CARTONS • SHIPPING CONTAINERS

BIG or LITTLE there's a Stainless Steel SAN-I-TANK .... to fit your special needs

New type "CHR" jacketed, insulated, stainless steel SAN-I-TANK is suitable for all types of hot or cold, light or heavy processing. Wiping action of agitator arms prevents mix from lumping or adhering to tank sides. Standard capacities: 150, 300, 500, 1000 gallons. Write today for Bulletin CHR-50.

To simplify blending, mixing, storage — or heating and cooling — whether your need is for a horizontal or a vertical tank, with or without agitators, specify Stainless Steel SAN-I-TANKS.

Type "J" is an open tank for processing and storage. Adapted to standard fittings, this sturdy stainless steel SAN-I-TANK is desirable where large tank capacities are not required. Standard Capacities: 60, 100, 200, 300, 400, 500, 600, 700, 1000 gallons. Write today for Bulletin SS-50.

STAINLESS STEEL SAN-I-TANKS

METAL GLASS PRODUCTS COMPANY

BELDING 4, MICHIGAN

ERTEL CYLINDER TYPE

Positive Seal

DISK FILTER

1. FILTERING ELEMENTS are independently tightened to provide positive seal.

2. OUTER CYLINDER is closed by separate handwheel to prevent drippage or evaporation.

★ This multi-purpose filter will operate with a lesser number of sheets than its rated capacity if so desired. Unit is arranged to make reloading and cleaning as easy as possible. Rigidly constructed inlet and outlet rings insure a positive seal and thus eliminate the danger of bypassing unfiltered liquid. Fully illustrated in bulletin ECD-1 which gives complete specifications.

USES: Drugs, Cosmetics, Lotions, Perfumes, Wines, Whiskies, Cordials, Rums, Cider, Extracts, Water, Syrups, Hospital Supplies, Plating Solutions such as copper, nickel, chrome, tin, Chemicals, Antiseptics, etc.

ERTEL SERVICE: We invite you to make use of our consultation service. Our engineering staff is always available to help in solving your Liquid Handling problems.

ERTEL ENGINEERING CORPORATION

KINGSTON NEW YORK

Representatives in Principal Cities

ERTEL

MANUFACTURERS OF HIGH GRADE ERTEL ASBESTOS FILTER SHEETS
ASBESTOS SHEET FILTERS • CYLINDER TYPE DISC FILTERS
PYROGEN FILTERS • VACUUM BOTTLE FILLERS • MIXERS • CAPPERS
CENTRIFUGAL AND SELF-PRIMING STAINLESS STEEL PUMPS

Sealed for your protection with INASEAL

The Vitamin Corporation of America gives these products *double* protection with Crown Closures and Inaseal.

The closures are Crown Screw Caps with the famous Deep Hook Thread for greater sealing pressure. The liners used in these closures have been carefully selected for maximum sealing efficiency.

Inaseal is the inner seal adhered to the lip of the jar for extra protection against moisture, evaporation, tampering and sampling.

Your Crown Representative will be glad to show you other examples of Inaseal in use, and give you full information about its installation in your plant. Crown Cork & Seal Company, Baltimore 3, Md. *World's Largest Makers of Metal Closures.*

CROWN CLOSURES

Approved by millions of housewives

Rybutol and Vyons are products of the Vitamin Corporation of America, Newark, New Jersey.

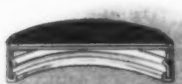
Our machine made flint glass bottles are available in a wide variety of sizes and styles. They can be supplied plain or with fired-on ceramic labels. The style illustrated is number C-39. Sizes range from ½ ounce to 16 ounces.
CARR-LOWREY GLASS CO.
Designers and manufacturers of fine glass containers
Factory and Main Office: BALTIMORE 3, MD. • New York Office: 40 W. FORTIETH ST. • Chicago Office: 1572 MERCHANDISE MART

"No wonder my cream keeps so *Soft* and *Fresh!*"

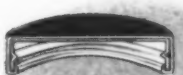
Yes, it's MeritSEAL'd ...and that means POSITIVE PROTECTION, Miss!

The women who buy products capped with MeritSEAL love it—for its smooth, trim lines . . . smart, glistening colors . . . and its distinctive look and feel of luxury. MeritSEAL's safe, efficient seal keeps their cosmetics fresh and moist as new. Everyone who knows MeritSEAL agrees. Cosmetic manufacturers know how it compliments and enhances their product. Production men know it can be depended on for trouble-free performance on the production line. Behind-the-counter saleswomen praise the eye-catching displays—and the fast sales—they can make with products using MeritSEAL. See for yourself how really attractive and efficient MeritSEAL is. We'll be glad to send full information and samples. Simply state your color preference and sizes needed for your product.

HARD, SCRATCH-RESISTANT COATINGS. Bright, sparkling colors for instant sales appeal. Handsomely lacquered or lithographed to suit your requirements.



PATENTED THREAD DESIGN. Spins on freely. Forms a perfect-fitting seal, but won't "freeze" to container. Only MeritSEAL has this exclusive design.



SIMPLE, EFFICIENT CONSTRUCTION. Liner and thread are inserted into a sheet metal shell. The thread holds the liner in position, and the lower edge of the shell locks the thread in place.

RANGE OF SIZE, CHOICE OF COLORS AND LINER MATERIALS. 12 standard sizes ranging from 48 mm. to 100 mm. Special sizes can be ordered. Choice of various liners to suit your needs.

CROWN CORK SPECIALTY CORP.
Division of Crown Cork & Seal Company

CROWN MeritSEAL—

Main Office: St. Louis, Mo. • Chicago: 401 W. Ontario Street
New York: 60 East Forty-Second Street • Western Representative: Western Crown Cork & Seal Corporation . . . San Francisco . . . Los Angeles

What 50 productive years have meant to your industry

This year, we at American Can Company are observing our 50th anniversary.

Offhand, you wouldn't think our anniversary would be very important except to the 33,000 people who work for Canco. But may we remind you that this anniversary celebrates 50 productive years that have helped your industry grow and prosper?

During this half century, Canco's growth and co-operation with your industry have brought forth widespread process and product improvement—opening *new* markets and helping you sell in *all* markets more efficiently than ever before.

A dramatic case in point is the Canco container development for blood plasma which protected first-aid units of blood plasma in World War II, and is being used extensively on the battlefields of Korea.

The people of Canco are proud of this and the many other Canco contributions to this industry.

And it is our pledge for the years ahead that the inventiveness and ingenuity so characteristic of Canco will continue to explore and open up new areas of usefulness to your industry and the consumers it serves.

1901—50TH ANNIVERSARY—1951

CANCO

AMERICAN CAN CO.

New York · Chicago · San Francisco · Hamilton, Canada

NEWS...

Walker Promoted by Parke, Davis

Graydon L. Walker has been promoted by Parke, Davis & Co. from assistant director of sales and promotion to director of United States and Canadian sales, according to Harry J. Loynd, president. Mr. Walker will be responsible for the plans and general administration of the company's U. S. and Canadian sales division.

Become Schenley Vice-Presidents

Dr. Charles E. Dutchess, medical director; Arthur F. Gormley, sales manager; and Sidney N. Sadoff, chief engineer, of Schenley Laboratories, Inc., have all been elected vice-presidents, according to Arthur C. Emelin, president.

Powers on Pfizer Executive Comm.

John J. Powers, Jr., head of the legal department of Chas. Pfizer & Co., Inc., since 1941 and secretary since 1948, has been appointed a member of the firm's executive committee, according to John E. McKeen, president. He has been succeeded as counsel for the company by Robert C. Porter.

Bertrand with NPA

Eugene F. Bertrand, sales manager to the drug and chemical industries division of Owens-Illinois Glass Co., has been appointed assistant administrator of the Defense Production Administration, according to William H. Harrison, D.P.A. administrator. He will be responsible for esablishing and coordinating the activities of regional defense mobilization committees in 13 states. During the second world war Mr. Bertrand served for 18 months as chairman of the packaging committee of the War Production Board and as assistant director of the Forest Products Bureau.

GRAYDON L. WALKER

JOHN J. POWERS, JR.

EUGENE F. BERTRAND

Crawford Succeeds Dunbar in FDA

Dr. Paul B. Dunbar retired as Commissioner of Foods and Drugs on May 31, after almost 44 years in government service and was succeeded in that position by Charles W. Crawford, deputy commissioner of FDA. Dr. Dunbar joined the FDA in 1906 under Dr. Harvey W. Wiley to undertake enforcement of the pure food and drugs act of that year. He became assistant to Walter G. Campbell in 1915 who was at that time chief of the Eastern food and drug inspection district, and in 1925 he was promoted to assistant chief of the Bureau of Chemistry under Dr. C. A. Browne. When the FDA was established as a separate enforcement bureau in 1927, Mr. Campbell was made chief, with Dr. Dunbar as assistant chief. In 1944 Mr. Campbell retired, and Dr. Dunbar succeeded him as Commissioner.

Mr. Crawford has spent all of his 34 years of government service with the Food and Drug Administration, having been appointed assistant commissioner in 1942 and deputy commissioner when that office was established in 1944.

New Warner-Hudnut Salon in Mex.

Warner-Hudnut, Inc., has opened a new salon in Mexico, D.F., the Salon Du Barry de Richard Hudnut. Among the executives and officers from the New York offices of the parent company were Robert J. Davis, executive vice-president; David A. Walker, vice-president and manager of the foreign division; and O. Scoppettone, advertising manager, foreign division. The new salon will specialize in dermatological care, weight reduction, and permanent waving, as well as the sale of cosmetics on the retail level. It replaces a smaller establishment opened in Mexico City several years ago.

Dow Promotions

Howard Raymond and John E. Charters have been appointed assistant purchasing agents by the Dow Chemical Co., the former, in charge of the equipment section, and the latter, in charge of the raw materials section. Mr. Raymond has replaced A. J. DuBord who resigned recently, according to Sam E. Quinn, purchasing agent.

Fragrance Foundation Elections

Samuel Rubin, Faberge, Inc., was elected president of the Fragrance Foundation for one year during the second annual meeting on May 17, while H. Gregory Thomas, Chanel, Inc., was re-elected vice-president. Frazer V. Sinclair, of BEAUTY FASHION, was elected treasurer, and A. L. van Ameringen, van Ameringen Haebler, Inc. was renamed secretary. The following were elected directors of the organization for a three-year period ending May, 1954: Oscar Kolin, Helena Rubinstein, Inc.; Pierre Harang, Houbigant Sales Corp.; and Philip C. Smith, Yardley of London, Inc.

Appointed Takamine V.P.'s

Eric G. Snyder, in charge of research and development, production and sales of Takamine Laboratory, Inc., and John J. Kenneally, head of the administrative accounting and controlling departments, have been appointed vice-presidents of the company. Herbert Bennett Uhl, formerly with Heyden Chemical Corp., has been appointed manager in charge of production.

Antibiotics, the "miracle drugs," have eased the suffering and lengthened the life span of mankind. The lifegiving properties of these fabulous drugs have advanced the cause of civilization more than any development of recent years.

The Plastic Assembled Products Company is proud to stand shoulder to shoulder with the pioneers and developers of these life-giving aids to humanity. Just as the improvements in the production of antibiotics have progressed, so we at Plastic have striven to keep pace with the industry in the perfection of closures to safeguard the life-giving properties of these drugs.

Plastic

ASSEMBLED PRODUCTS COMPANY

1149 WATSON ST. · BALTIMORE, MARYLAND

Cable address: PLASTICOID

World's Largest Manufacturer of Dropper Fitments

Fanning Builds Lanolin Plant

Frank G. Fanning has announced the completion of a plant at 352 Doremus Ave., Newark, for the production of lanolin, wool fat, its derivatives and chemical specialties. The plant is now in production and has a rated refining capacity of approximately 500,000 pounds monthly.

The Fanning company offices were moved from 50 East 42nd St., New York, to the Newark location on June 1st. The telephone number is Mitchell 2-7523.

FRANK G. FANNING

E. L. Patch Elections

The following officers and directors of the E. L. Patch Co. were elected at the annual meeting on May 16: Fred A. Lawson, president and general manager; Milton J. Keppler, vice-president; William S. Lister, treasurer; Francis A. Clarke, assistant treasurer; and John J. Van Tichelt, clerk and secretary.

Ralph R. Patch was elected chairman of the board of directors, which includes the above elected officers and Edgar L. Patch, who is in charge of a new western branch office and warehouse in Chicago. He has been succeeded as general sales manager by Milton J. Keppler who has been with the company over 30 years as salesman and southern district manager.

These seven elected officers and directors represent a total of more than 225 years of service with the E. L. Patch Co.

Zimmerman Promoted by Arner

Carlton F. Zimmerman, chief control chemist of the Arner Co., has been appointed technical director, according to Niels C. Klendshoj, executive vice-president. He will be in charge of production, planning, and scheduling for both the Buffalo and Fort Erie, Ont., plants.

Package Mach. Sales Staff Changes

J. J. Kelly will act in the capacity of field sales supervisor of the Package Machinery Co. in all territories other than those covered by the New York office, beginning with July 1. Additional changes include those of Lee Evans, who will be transferred from Chicago to Boston. He will have charge of all sales in the Boston territory and supervise carton machinery sales in the western New England and upper New York territory, and Cleveland and Atlanta. Theron Russell of the Chicago office will handle the carton machinery line in the entire Chicago territory, taking over the accounts formerly handled by Mr. Evans. John W. Andrews of the Springfield office is being assigned to the New York office, with the result that four men will operate from that office, under E. G. Westervelt, eastern sales manager.

J. J. KELLY

Atlas Powder Appointments

Kenneth E. Mulford has been appointed general manager of Atlas Powder Company's industrial chemicals department, and succeeds J. R. Frorer who was elected a vice-president early in May. J. Peter Kass was named director of the research and development department, succeeding K. R. Brown who was elected vice-president.

New Armour Plant in Argentina

Armour & Co. plans to open a new plant in Buenos Aires, Argentina, in a short time, to tap new sources of raw material in order to relieve a potential shortage of insulin and increase supplies of ACTH and trypsin, according to F. W. Specht, president. The Armour subsidiary responsible for the new unit will be known as Laboratorios Armour de Argentina, S.A. and will be headed by S. B. Bradshaw, president, who is also manager of the international department of the Armour Laboratories. Loyal C. Maxwell will be vice-president and J. G. Speer, secretary and treasurer.

The 70,000 square foot, four-story building is now being equipped with North American machinery, and a staff nucleus is being recruited in Chicago to train the Argentine personnel, who will eventually operate the establishment.

The plant's production will go first to supply the needs of Argentina, which government has agreed to permit export of the surplus. It is estimated at the present time that 20 per cent of the potential capacity for these three drugs will fill all Argentine needs, while 80 per cent will be available for world-wide distribution.

Grove Erecting $3 Million Plant

Grove Laboratories has begun construction on a new $3 million plant on a 13½ acre site in Ladue, a suburb of St. Louis, which is expected to be completed in February, 1952. James H. Grove, president, states that increased demand for company products and expanded activities have made the present headquarters in St. Louis inadequate. The company acquired the Fitch line in June, 1949, and has since been manufacturing the full line of Fitch shampoos and toiletries in addition to the original Grove line of proprietaries.

It has also acquired a new plant in Modesto, Calif., which began full-scale operations early in May. In addition to these, Grove operates large plants in Bayonne, N.J., and Jackson, Miss.

Sketch of $3 million plant under construction for Grove Laboratories, which will have about 200,000 square feet of floor space. It will be used for the manufacture and distribution of Grove and Fitch products in the midwest when completed in February 1952.

New SKF Warehouse in Phila.

Smith, Kline & French, Inc. officially opened a new Philadelphia warehouse of medical and first-aid supplies at 1011 Butler St. Said to be the most modern drug distributing warehouse in the country, the 1½-million cubic-foot building houses individual drug and first-aid items on about four miles of steel shelving. In commenting on the role of the new structure in an emergency, J. Mahlon Buck, president of SKF, Inc., said, "It should be reassuring to the people living within the Philadelphia trading area to know that such a stockpile of emergency items is available at a moment's notice."

Winthrop-Stearns Price List

The special chemicals division of Winthrop-Stearns Inc. has issued a new 1951 descriptive price list featuring seven new products and three price reductions, according to Aaron Addelston, director of the division.

Price reductions are noted for 9-aminoacridine hydrochloride, hexylresorcinol, USP, and dl-threonine. Among the new products mentioned are 4-acetylaminoantipyrine, for investigational use, suggested for determination of body water; casein hydrolysate; tryptophan-free casein hydrolysate, for nutritional tests; dimethylamino propanol-2, for synthesis of methadon and other pharmaceuticals; ferrous gluconate NF; 3-methyl thiophene, and 1-phenyl-3-carbethoxypyrazolone-3, a new dye intermediate.

Col. Kimble Honored by SAMA

Col. Evan E. Kimble, pioneer glass manufacturer and founder of Kimble Glass, received the Award for Outstanding Service given by the Scientific Apparatus Makers Association at a special banquet during the recent SAMA meeting. Col. Kimble, 83, flew from his Florida home to White Sulphur Springs to accept his award, the third the association has given in its 33-year history.

COL. EVAN E. KIMBLE

Kelleher Promoted by Lorr Labs.

Bernard J. Kelleher has been appointed a director and treasurer of Lorr Laboratories and its domestic and foreign subsidiary companies, according to the board of directors. He has been associated with the company for 20 years, having recently served as assistant secretary and assistant treasurer.

Lipscomb Named to Two Posts

Charles T. Lipscomb, Jr., president of the Pepsodent division of Lever Bros. Co., was elected president of the Sales Executives Club of New York for the club's fiscal year 1951-52, at the annual meeting last month. He had been first vice-president. He was also elected a director of the Toilet Goods Association, Inc. for a three-year term, during that organization's annual convention in May.

CHARLES T. LIPSCOMB, JR.

New Flavor Plant for P & S

Polak & Schwarz, Inc. on May 9 broke ground for its new flavor plant in Teterboro, N. J. Louis Davids, executive vice-president, addressed the gathering, briefly reviewing events leading up to the occasion. Other officers attending the ceremony were Benjamin d'Ancona, Clifford Jackson, and Charle Fricke. Among the distinguished guests were Miss Vera D. Baum, Mayor of Teterboro; Mrs. Elly Schwarz, widow of the late Samuel Schwarz; her son, Paul, here on a visit from the Far East; and Mrs. Kathryn Wynmalen, widow of the late John Wynmalen, former president and chairman of the board.

Armstrong Sales Convention

The glass and closure division of the Armstrong Cork Co. held a 3-day sales convention early last month at the company headquarters in Lancaster, Pa., during which time company objectives and divisional sales programs were reviewed. Among those executives who addressed the sessions were C. J. Backstrand, president; Kenneth O. Bates, executive vice-president; J. C. Feagley, vice-president and general manager of the division; R. A. Horning, assistant general manager and production manager of the division; and R. H. Hetzel, the division's general sales manager.

Douglas J. Bell, left, manager of Armstrong Cork Company's Glass and closure division office, New Orleans, being congratulated by Joseph C. Feagley, vice-president and gen. mgr. of the division, on 35th year with company. C. J. Backstrand, pres., is looking on.

GLYCERINE

IMPORTANT FOR NATIONAL HYGIENE...

...IMPERATIVE FOR NATIONAL DEFENSE!

Shampoos and shaving creams . . . toothpastes, toiletries, lotions . . . our day-to-day health depends heavily on aids like these. And they, in turn, depend on U.S.P. Glycerine!

Glycerine is an all-important solvent, plasticizer, oil repellent, humectant and freezing-point depressant, with a combination of physical and chemical properties unmatched by any other product!

That's one reason why it ranks high in importance to our defense efforts—so high that it was named one of the first six chemicals to be put under inventory control*!

Propellants and explosives, as well as life-saving pharmaceuticals, are numbered among Glycerine's other applications. So, if your supply is temporarily restricted in the days to come, remember: Military demands *must* be *met*!

*By Government authorities responsible for inventory control under the National Defense Act.

GLYCERINE PRODUCERS' ASSOCIATION
295 Madison Ave., New York 17, N. Y.

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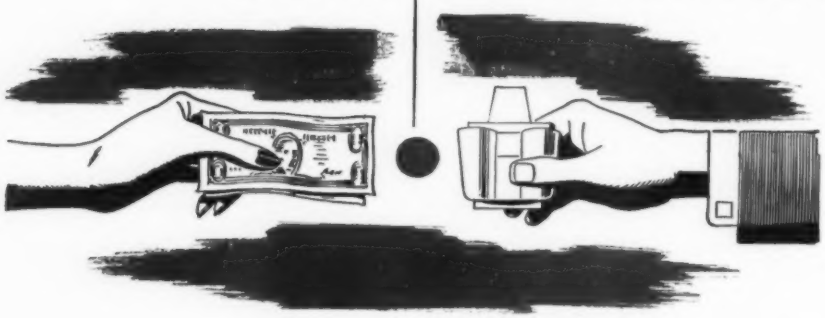
PROVING GROUND OF PRODUCT QUALITY



Here is a tried-and-true way to make your line even more *marketable* and *profitable* . . . use pure, stable Verona aromatic chemicals for your bases. Then your perfumes, creams, toilet waters or soaps will reach the point-of-sale . . . *proving ground of quality* . . . just as you made them . . . with their fragrances as flower-fresh and appealing as when they left your plant.

Verona specialties

amuskal	For freshness and life in your compound, add 1/10% to ¼% Amuskal. Produces natural Tonquin Musk effect.
ambre e-342	Add 2% to 3% of this characterful Ambre to produce the deep, sweet Ambre note for your perfume's appealing final effect.
opoponax ambre e-392	Indicated in fragrances of Oriental type; adds piquancy to the Ambre note. Use from 2% to 5%.
aldehyde e-317	Provides the top note to the first arresting fragrance. Add only ½% to 1% for surprising results.

cyclamal • rose e-131 • ionones • floranol

SOLE AGENT IN THE U. S. A. FOR J. & E. SOZIO, GRASSE, FRANCE

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VERONA

AROMATICS DIVISION

VERONA CHEMICAL COMPANY • 26 VERONA AVE., NEWARK, N. J.

Emelin Heads Schenley Labs.

Arthur C. Emelin has been elected president of Schenley Laboratories, Inc., succeeding the late Irving J. Seskis, according to Lewis S. Rosenstiel, chairman and president of the parent corporation, Schenley Industries, Inc. He joined the company in 1944 as district sales manager.

Aaron F. Levy, a member of the laboratories since their inception, and of the engineering staff of the parent company since 1935, has been named executive vice-president for Schenley Laboratories.

ARTHUR C. EMELIN

Triangle Package Expands

The Triangle Package Machinery Co. has expanded the facilities of the eastern divisional sales offices as a result of the recent merger, in which the company took over the Bagby Corporation of Evanston, Ill. Triangle has relocated its offices in the Academy Bldg., 1212 Raymond Blvd., Newark. This centrally located office will handle the sales, installation, and service scheduling of both the Triangle line of dry weighing, measuring and filling equipment, and the Baby line of semi-solid, heavy viscose and paste filling equipment.

Walter P. Muskat, who was recently transferred from the Central division remains in charge of the office and has been elevated to eastern divisional manager for the Triangle Package Machinery Co., and the Bagby division, Triangle Package Machinery Co.

Pattison Heads Glycerine Div.

E. Scott Pattison has been named manager of the Glycerine division, and of the newly organized fatty acids section, according to Roy W. Peet, manager of the Association of American Soap & Glycerine Producers. He had previously been executive vice-president of the G. M. Basford Co.

Establish Moffet Labs., Inc.

John C. Moffet has announced the formation of Moffet Laboratories, Inc., of which he is president. The new firm, located in Dayton, Ohio,will manufacture and market a line of ethical pharmaceutical specialties. Other officers of the company are Wallace W. Apgar, vice-president in charge of sales and advertising; M. A. Nunn, vice-president in charge of production and product development; and C. T. Williams, secretary-treasurer.

Appointed by Westvaco

W. N. Williams has been appointed operating vice-president of Westvaco Chemical division of Food Machinery & Chemical Corp. He has named as staff assistants, Dr. K. C. Rule and Robert J. DeLargey. Dr. Rule has been assistant production manager at New York and was formerly staff assistant to the plant manager and head of process control at Westvaco's South Charleston, plant. He has been succeeded in New York by S. Philip Marcus.

Robert A. Bondurant, Jr., formerly executive vice-president of Michigan Chemical Corp., has also joined Westvaco's production staff in New York.

W. N. WILLIAMS

Pfizer Forms Canadian Subsidiary

Chas. Pfizer & Co., Inc. has formed a Canadian subsidiary, Pfizer Canada, Ltd., and has invested in a new fine-chemical plant at Cornwall, Ontario. Donald Hilton, director of foreign sales for the parent Pfizer Company, is president of Pfizer Canada, Ltd., which will handle Canadian sales of terramycin and other Pfizer-labelled articles. The new Cornwall plant will be erected by Kemball Bishop, a British-controlled Canadian firm with which Pfizer participated jointly in acquiring the site. Pfizer has a substantial investment in the British company.

Bristol Expands Penicillin Plant

Bids will be received in the near future by Bristol Laboratories Inc. for construction of a modern brick and glass building to serve as a wing of its penicillin plant. This expansion, Bristol's second since the beginning of the Korean war, is in addition to the fermentation and chemical extraction area additions which were begun last October and are now partially in operation, according to James D. McNitt, vice-president in charge of manufacturing.

Max Factor Re-elects Officers

Max Factor & Co. re-elected its directors and officers for the new term during a meeting last month. These men include Davis Factor, chairman of the board; Max Factor, Jr., president; Max Firestein, vice-president; Michael Harris, vice-president in charge of exports; Jack B. Mier, vice-president in charge of foreign sales; Leon H. Levi, secretary; Louis Factor, treasurer; Ralph E. Lazarus, assistant secretary; and Jack Abrams, comptroller.

Ingram Succeeds Rogers Chem.

Ingram Labs., Inc. has been named successor to the R. R. Rogers Chemical Co., which was active for many years in pharmaceuticals, particularly in the production of a number of basic ampul preparations.

Dr. Byrne with Comm. Solvents

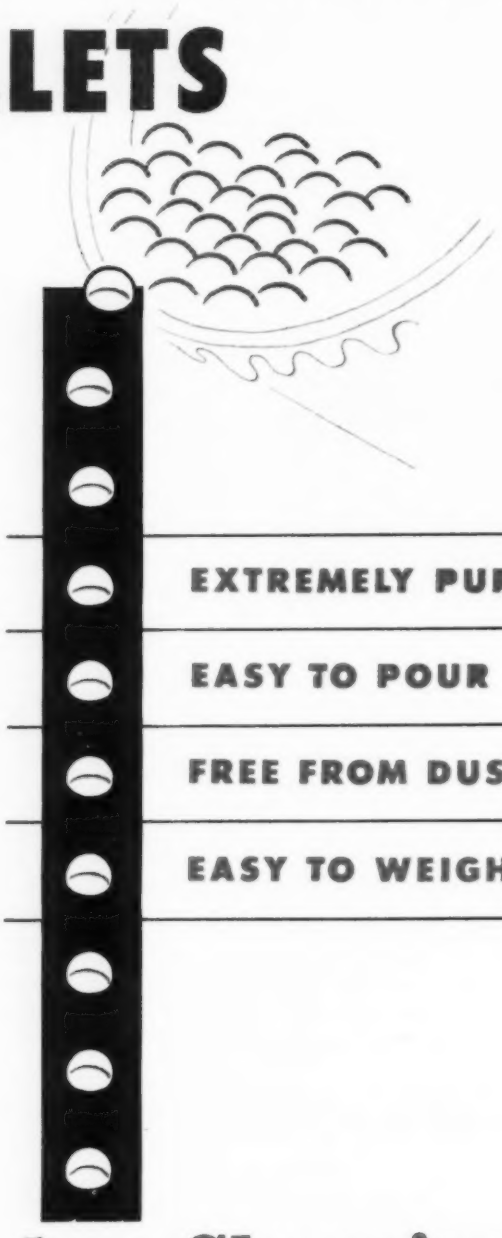
Dr. Harold J. Byrne has been appointed director of clinical research at Commercial Solvents Corp., according to T. S. Carswell, vice-president in charge of research and development. He will be in charge of clinical evaluation of new drugs and antibiotics at the company's research center in Terre Haute.

DR. HAROLD J. BYRNE

Baker

SODIUM HYDROXIDE and POTASSIUM HYDROXIDE

PELLETS



Here's how you can simplify your handling problems of Sodium or Potassium Hydroxides:

Specify Baker's Pellets. They are easier to weigh —free flowing—safer and more convenient to use—higher in chemical purity.

Baker's Hydroxides are always pure white—extremely low in heavy metals—low in chloride, carbonate, sulfate, phosphate, nitrogen and silica content.

Manufacturers of many leading products, including plastics, fine soaps, cosmetics, drugs, etc. —photoengravers and electroplaters—should investigate Baker's Pellets and compare. Here are high purity hydroxides, that can reduce your production costs—give you efficient and economical results.

Sodium Hydroxide is available in C.P. or N.F. grades—Potassium Hydroxide in C.P. or U.S.P. grades.

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EXTREMELY PURE

EASY TO POUR

FREE FROM DUST

EASY TO WEIGH

Baker CHEMICAL

Baker Chemicals

REAGENT • FINE • INDUSTRIAL

Heads Northam Warren Export Div.

Robert L. Polk was elected vice-president in charge of the export division of Northam Warren Corp. at the company's annual meeting held in New York, according to Northam Warren, president. He has been with the company for over 13 years.

ROBERT L. POLK

Olin Prods. Co. Formed

James L. Spencer has been named vice-president and director of sales of the newly formed Olin Products Co., Inc., according to John M. Olin, president of the new company and of Olin Industries, Inc. Olin Products Co., a subsidiary of Ecusta Paper Corp. of Pisgah Forest, N. C., will have temporary headquarters at 270 Park Ave., New York, and will distribute Olin Cellophane in the packaging field.

The new corporation will have the same executive committee as both Olin Industries and the Ecusta Co., a subsidiary. A new mill for cellophane production is being completed on the plant site of the Ecusta Co.

The new corporation will have the same executive committee as the other two, consisting of John M. Olin; Spencer T. Olin, first vice-president of Olin Industries; John W. Hanes, also a vice-president of Olin and president of Ecusta; and E. W. Taft, Olin treasurer.

Cutter Producing Dextran

Cutter Laboratories is producing Dextran, blood plasma extender used in emergency treatment of shock, for further clinical investigation, accordig to D. R. Court, vice-president. Pharmacia Limited of Uppsala, Sweden, hold process patetns on Dextran in that country, while Refined Syrups and Sugars, Inc., Yonkers, N. Y., and Cutter are the sole licensees in the United States under these patents.

Dr. Mote Leaves Armour

Dr. John R. Mote, assistant general manager of the Armour Laboratories, resigned on May 18. He had served five years with the company and was responsible for the development of the clinical research program which established ACTH.

Ames Appointments

Howard F. Christner has been appointed assistant secretary of Ames Company, Inc. and Charles VerBerkmoes, assistant treasurer.

Signs Contract with Schering

Caetano Macieira, general manager of Laboratorios Reunidos of Madrid, recently visited the United States to confer with Francis C. Brown, president of Schering Corp., and to sign a long-term distribution and processing contract. He worked with Dr. John N. McDonnell, vice-president of the company, in forming the plans for introducing the Schering line in Spain.

Caetano Macieira (right), gen. mgr. of Laboratorios Reunidos, conferring with Francis C. Brown, president of Schering.

Bristol-Myers 25 Year Club

Some thirty-three employees attended the recent annual dinner of the Quarter Century Club of Bristol-Myers Co. Also present were Henry P. Bristol, chairman of the board; Lee H. Bristol, president; and William M. Bristol, executive vice-president.

Named Director of Chem. Ass'n

R. W. Hooker, vice-president in charge of sales, Hooker Electrochemical Co., has been elected a director-at-large of the Armed Forces Chemical Association. The Hooker Company is one of nine sustaining members of the association, and Mr. Hooker is a charter member of it.

Bailey Receives Plastics Award

James Bailey, vice-president and director of research, Plax Corp., was presented with the John Wesley Hyatt Award for distinguished achievement in plastics during a banquet at the Greenbrier Hotel, White Sulphur Springs, on May 24. He received a gold medal and $1000 for his research including the techniques for the production of polyethylene bottles, the continuous extrusion of flexible polystyrene sheet, and the extrusion in continuous lengths of rod of cellulose plastics and polymeric resins.

Horace Gooch, Jr., president of the Society of the Plastics Industry, and a member of the John Wesley Hyatt Award Committee, served as toastmaster, while the Honorable Okey L. Patteson, governor of West Virginia, presented the award.

Cosmetic Representative in Sweden

N. Ternberg, cosmetic manufacturer, Sundbyberg, Sweden, wishes to contact American manufacturers of toilet articles or associated lines which could be marketed along with their own cosmetics through their contacts with retail outlets in Sweden. Firms interested are requested to communicate with Mr. Ternberg at the above address.

Named Director of CSC

Brownlee O. Currey has been elected to the board of directors of Commercial Solvents Corp., according to J. Albert Woods, president. He is president and a director of Equitable Securities Corp., Nashville.

Bell Named Table Rock President

Charles W. Bell has been elected president of Table Rock Laboratories, Inc. He joined the company in May of last year as assistant manager, prior to which he was associated with the Bilhuber-Knoll Corp.

CHARLES W. BELL

Private Label

Especially Fine Toilet Soaps • Shave Soaps

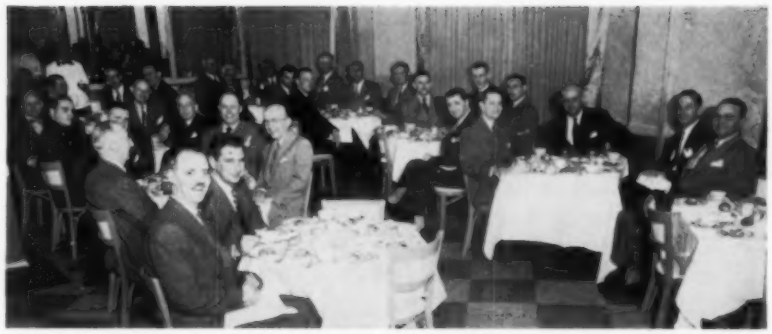
REINITZ SOAP CORPORATION takes pleasure in announcing that it has become necessary to acquire larger premises and that, as of June 25, their plant and offices will be located at 36-14 35th Street, Long Island City 6. As can be seen from the photograph above, the new location is even more convenient to Manhattan than the old one.

REINITZ SOAP CORPORATION

36-14 35th Street • Long Island City 6, N.Y.

Elected Flavoring Extract Pres.

W. G. Grant of National Nu-Grape Co., Atlanta, was elected president of the Flavoring Extract Manufacturers Association at the final session of the annual meeting May 23. Additional officers named include W. H. Hottinger, Bowey's, Inc. as vice-president; D. J. Jenks, Foote & Jenks, second vice-president; Myron C. Hess, S. Twitchell & Co., third vice-president; L. C. Smith, Virginia Dare Extract Co., treasurer; and L. P. Symmes, Baker Extract Co., secretary. Among those elected to the executive committee was H. J. Reinhardt, American Home Products Co.



Branch managers of Bristol-Myers products division meeting in New York. Joseph P. Harkie, vice-president in charge of sales, presided over conference, while Frank Hale, head of merchandising department, outlined company's promotion plans for rest of 1951.

13th Edition of Consulting Services

The Association of Consulting Chemists and Chemical Engineers, Inc. has published the thirteenth edition of *Consulting Services*, 1951, revised, enlarged and streamlined. This edition totals 136 pages.

Requests for this publications must be addressed to the association, giving source of reference, name of person, company's name, and complete address including postal zone number.

Innis, Speiden Promotions

F. E. Strauch, Innis, Speiden & Co., has been appointed midwestern district manager and has been succeeded as Chicago Branch manager by A. M. Oster., according to W. H. Sheffield, President.

F. E. STRAUCH

A. M. OSTER

Named Calumet Treasurer

Harry Schwartzman has become treasurer of Calumet Manufacturing Co., according to President Sam Schwartzman, his brother.

With Evans Research

Alfio J. Besozzi and Evelyn Krevor have joined the staff of Evans Research and Development Corp. as a project leader and chemist, respectively.

Wandell Appointed by Armour

Francis A. Wandell has been appointed assistant manager of the international department of the Armour Laboratories, with headquarters at 520 North Michigan Ave., Chicago 11, according to T. E. Hicks, general manager. He was formerly head of the purchasing department of J. T. Baker Chemical Co.

Standard Tube Elections

Following the death of R. L. Kenah earlier this year, president of Standard Specialty & Tube Co., R. E. Reed was elected president. Additional officers include D. F. Lindsay and J. H. Heideger as vice-presidents; R. M. Kenah, treasurer, and E. K. Reed, secretary.

Head Retires From Whalen

Frank M. Head, vice-president and general merchandise manager of the Whalen Drug Co., retired from that post June 15, and has been succeeded by Frank Canonico.

Heyden Builds New Plant

Heyden Chemical Corp. is constructing a new plant at its Fords, N. J., division for the production of para-chloro-benzaldehyde.

Detroit "Woman of the Year"

Dr. Mildred C. Rebstock, 31-year-old research chemist of Parke, Davis & Co., who played an important part in the synthesis of chloromycetin, was named Detroit's "Outstanding woman of the year" at a dinner meeting of the Woman's City Club in that city on May 23. In January of this year, Dr. George Rieveschl, Jr., one of Dr. Rebstock's Parke-Davis associates, was named Detroit's "most outstanding young man of the year" by the Junior Board of Commece for his work on Benadryl.

Sterling 25-Year Club

Sterling Drug Inc. honored 46 of its employees at a dinner of its Quarter Century Club in the grand ballroom of the Hotel Roosevelt in New York last month. The oldest company worker in point of service who attended the dinner was Edward J. Hauser, who retired in February, 1949, after completing 55 years. Roy Marmaduke, another 50-year veteran, was production engineer with the original company in Wheeling, W. Va., before he retired.

Each member was presented with his choice of a wristwatch, sterling silver bowl, or table silverware by James Hill, Jr., Sterling's chairman and president.

With Sharp & Dohme

Dr. Wallace L. Davidson has been appointed industrial physician for the Glenolden and West Point, Pa., plants of Sharp & Dohme, Inc, according to W. W. Lauer, Jr., vice-president.

Bidlack with Wampole

Verne C. Bidlack, Jr. has joined the research department of Henry K. Wampole & Co., Inc., according to A. A. Mahony, vice-president.

Some thoughts on GOLF
and Pharmaceutical Manufacture

How much good golf and good pharmaceutical manufacture are alike!

I remember a lot of years ago when I was first taking some lessons in golf, the "pro" kept insisting that good control of the club made for good follow-through.... Of late years I've remembered that more than once.

Here, at Strong Cobb, when it comes to control we've always kept our eye on the ball... an average of 23 different holes for each product as it goes over the course. And then one day we realized we were stopping just short of the last hole... the plastic package! If you don't control the package, you don't thoroughly control the product, and then you're in the rough!

So we started the Seal-Crimp operation. And that involved more control because Strong Cobb doesn't just make seal-crimp packages... it runs a number of controls on them too! Controls for packaging materials specifications, simulated climatic conditions, seal control, tablet erosion, and so on. And that's like good golf—good control from laboratory to finished Seal-Crimp package... to the last flag on the course....

Yours for better control in golf, pharmaceutical manufacture, and Seal-Crimp packaging.

PRESIDENT

PHARMACEUTICALS SINCE 1933

Strong Cobb & Co. Inc.

2654 LISBON ROAD, CLEVELAND 4, OHIO

Originators and Developers of the
AMPIN
for Automatic, Subcutaneous and Intramuscular Injection

Sails for Europe

Mala Rubinstein, niece of Helena Rubinstein, sailed for Europe aboard the SS De Grasse on May 22 for an extended two-month tour of five different countries, where she will survey the latest European fashions.

Bowles Appointed by Schering

Robert Bowles has been appointed central division hospital supervisor of Schering Corp., according to Dr. John N. McDonnell, vice-president.

ROBERT H. BOWLES

Rexall Adds Two Directors

C. Earl Cooper and A. Schumacher have been elected to the board of directors of Rexall Drug., Inc. Mr. Cooper is vice-president in charge of marketing for Rexall, and Mr. Schumacher is president of the Liggett Drug Co.

Richford Booklet

Richford Corp. has prepared a brochure describing the new Spillproof Purse Container, and illustrating the various sizes and designs, from the 1-dram Watchcase to the double Opera Glass.

Schafer with Colton

William F. Schafer has been appointed sales engineer of Arthur Colton Company with headquarters at the New York office, according to K. B. Hollidge, executive vice-president.

With Almay Division

Miss Sigrid Peterson, formerly of Care, Inc., has joined the Almay division of Schieffelin & Co. She will be concerned with sales promotion and sales training in connection with the expansion of Almay hypo-allergenic cosmetics.

Sliger to Manage CSC Purchasing

Herbert B. Sliger, formerly assistant general sales manager, has been appointed manager of the purchasing department of Commercial Solvents Corp., according to J. Albert Woods president. He will report to Maynard C. Wheeler, vice-president in charge of production, and will temporarily maintain offices in both New York and Terre Haute, Ind. John H. Hassmer will continue as purchasing agent, with headquarters in Terre Haute.

HERBERT B. SLIGER

Sharp & Dohme Appointments

E. J. Donahue, branch manager of Sharp & Dohme Inc. at San Francisco, has been named New York branch manager, according to E. W. Metzger, director of domestic branches. Additional changes in personnel include George D. Grant, who has been transferred from New York to Philadelphia where he manages that branch, succeeding D. V. Knoot who was appointed chief of warehousing and traffic last January. William B. Rees, Jr., assistant New York branch manager, has become manager of San Francisco branch.

Clark Honored by Cos. Chemists

Dr. G. Robert Clark, chief, division of cosmetics, Federal Security Agency, Food & Drug Administration, was awarded an honorary membership in the Society of Cosmetic Chemists, at the society's luncheon and technical meeting on May 18.

Lacke Promoted by Continental Can

Warren A. Lacke has been appointed general manager of industrial relations of the Continental Can Co., according to Lucius D. Clay, chairman of the board. He succeeds J. E. Niederhauser, formerly vice-president in charge of industrial relations, who retired May 1.

Springer Appointed by Hooker

Donald E. Springer has been appointed assistant chief engineer of the Hooker Electrocheimcal Co., according to E. K. Newton, chief engineer.

Appointed by Smith-Dorsey

Dr. George R. Underwood has been appointed full-time medical director of the Smith-Dorsey Co., having formerly held that position on a part-time basis only.

DR. GEORGE R. UNDERWOOD

May Acquire Innis, Speiden

The International Minerals and Chemical Corp. plans a special meeting of stockholders on June 27 to consider the acquisition of Innis, Speiden & Co. Directors also recommend an increase of the authorized common stock from 2,000,000 shares of $5 par value to 2,500,000 shares, subject to stockholder approval. Shareholders also will be asked to authorize the issuance and exchange of 76,648 unissued shares of common stock of the corporation in connection with the acquisition of Innis, Speiden & Co.

Heyden to Triple Resorcinol Output

Heyden Chemical Corp. has completed plans to triple its production of resorcinol, according to John P. Remensnyder, president. The resorcinol plant at the Heyden Garfield, N. J., division which was partially destroyed by fire in February is now being rebuilt with doubled production capacity of 600,000 pounds annually. The company is also planning to apply to the N. P. A. for a certificate of necessity to construct additional capacity to raise resorcinol production to 1,000,000 pounds annually. Koppers Co. and Heyden Chemical Corp. are the only producers of the material in this country; the total U. S. resorcinol production is estimated at four million pounds.

Cartwright Named Bowman Rep.

Kenneth L. Cartwright has been appointed midwestern representative of Charles Bowman Co., according to Charles L. Bowman, president. His headquarters will be in St. Louis.

KENNETH L. CARTWRIGHT

Fouts Appointed by Dow

Hal J. Fouts has been appointed sales representative for the Bush Aromatics division, the Dow Chemical Co., for the state of California, according to Donald Williams, director of sales.

Cohen Appointed by Merck

Dr. Frank L. Cohen has been appointed director of production of Merck & Co., Inc., according to R. P. Lukens, vice-president for production. He will be responsible for directing and integrating all manufacturing, packaging and shipping operations of the company's plants at Danville, Pa., Philadelphia, Elkton, Va., and Rahway, N. J.

Pfizer Terramycin Team Wins Award

The Terramycin Research Group of Chas. Pfizer & Co., Inc. received the 1950 Commercial Solvents Award in antibiotics at the annual meeting of the Society of American Bacteriologists on May 29. Dr. Walter J. Nungester, president of the Society, presented the gold medal award and $1,000 to Dr. G. L. Hobby, spokesman for the research group. Members of the research group who also received individual scrolls included A. C. Finlay, Dr. Hobby, J. H. Kane, Dr. S. Y. P'an, Dr. P. P. Regna, Dr. J. B. Routien, Dr. D. B. Seeley, Dr. G. M. Shull, Dr. B. A. Sobin, I. A. Solomons, and J. W. Vinson.

The Commerical Solvents Award, established in 1950, is administered by the Society of American Bacteriologists and awarded to that person or group in the Western Hemisphere who has contributed outstanding work in the field of antibiotics during the past year.

Inst. of Chemists Has Elections

The following councilors of the American Institute of Chemists were elected to serve three-year terms at the annual business meeting in Niagara Falls on May 10, according to President Lawrence H. Flett. Dr. M. L. Crossley, consultant, American Cyanamid Co. (re-elected); Florence W. Wall, consultant in cosmetics, technical writing, 210 East 68th St., New York (re-elected); and Dr. John R. Bowman, head, department of research in physical chemistry, Mellon Institute of Industrial Research.

Appointed by Helene Curtis

William Englehaupt has been appointed sales promotion manager of the retail division of Helene Curtis Industries, Inc., in line with the company's new expansion program. He had formerly ben associated with the Pepsodent division of Lever Brothers for many years and was recently sales manager for the Scholl Manufacturing Co., Inc.

WILLIAM ENGLEHAUPT

With Van Dyk

Dr. Saul Ian Kreps has been appointed chief research chemist of Van Dyk & Co., Inc. He had formerly been chief research chemist for United Merchants Laboratories, Inc. and for the Atlantic Refining Co.

Plough Buys Drucker Co.

Plough, Inc., has purchased all capital stock of the August E. Drucker Co., California, and makers of Revelation Tooth Powder, according to Abe Plough, president. The purchase includes all the assets of the Drucker firm, as well as the property and building located at 2226 Bush St. in San Francisco.

The new firm will be known as the Plough Sales Corp. of California. Abe Plough will be president; Harry B. Solmson, vice-president; Ramon Diaz, vice-president; Charles A. Harrelson, secretary-treasurer; Robert E. Huey, assistant secretary; and Bruce Cox, assistant treasurer.

Colby Promoted by Emery

Vernon W. Colby has been promoted to assistant chemical sales manager by Emery Industries, Inc. He will work with Robert T. Hull, also assistant chemical sales manager, and Robert F. Brown, chemical sales manager. He had formerly been associated with the company in a sales capacity.

Luis de Hoyos

Luis de Hoyos, 59, vice-president and secretary of Synfleur Scientific Laboratories, Inc., died at his home in Monticello, N. Y. on May 8. He was sent to Santiago, Chile, by the State Department in 1938 as technical adviser to the Inter-American Congress of Municipalities and was state Mayors' reception committee chairman for distinguished Latin-American guests at the last Mayors' conference. He had been mayor of Monticello since 1941. Surviving are his wife, Mrs. Marie de Hoyos; a son, Luis Jr.; a daughter, Mrs. Rose Marie Dormer; three sisters, Mrs. Candida Gertz, Mrs. Beatriz Gonzalez, and Mrs. Concha Fuentes; and a brother, Benino de Hoyos.

Reginald Knock

Reginald Knock, syndicate sales manager of the Toni Company, died May 22 at Miller Hospital in St. Paul. He was 40 years old. He became the first Toni salesman when the company was formed in July, 1944.

John M. Olwyler

John M. Olwyler, president and a member of the board of directors of Zonite Products Corp., died May 12 at the age of 57. He was also president of several subsidiary corporations.

Frederick Sweet Stearns

Frederick Sweet Stearns, former president of Frederick Stearns & Co., forerunner of the Sterling Drug Co., died in Jennings Hospital, Detroit, on May 11, at the age of 69. Mr. Stearns entered the family business in 1901, it having been established by his grandfather in 1855, and became president in 1924. He held this position until the company was sold in 1944 to Sterling Drug. At the time of its sale, Frederick Stearns & Co. did a gross business of $6,000,000 a year.

He is survived by a daughter, Mrs. John Greene; two sons, Frederick Sweet Stearns 2nd and Philip O. Stearns; a brother, Allen O. Stearns; and two sisters, Mrs. Ralph Dyar and Mrs. Herman Richardson.

Pharmaceutical Manufacturers demand ...

A battery of Stokes fully automatic Rotary Tabletting presses making the famous Bayer Aspirin Tablets.

. . . machines which form tablets of perfect accuracy, perfect uniformity, even texture, satin finish.

. . . machines which assure long trouble-free service at lowest cost for operation and maintenance.

. . . machines which operate automatically, producing millions of perfect tablets at maximum efficiency.

These are the characteristics on which Stokes has built a world-wide reputation for its tabletting machines.

Punches and dies for Stokes tabletting presses, including carbides for long-run production jobs or abrasive materials, are made in our own shops with the precision characteristics that match them to the high standards of all Stokes products.

STOKES

STOKES MAKES

Plastics Molding Presses,
Industrial Tabletting
and Powder Metal Presses,
Pharmaceutical Equipment,
Vacuum Processing Equipment,
High Vacuum Pumps and Gages,
Special Machinery

F. J. STOKES MACHINE COMPANY, 5032 TABOR ROAD, PHILADELPHIA 20, PA.

Dressed with an Empress closure and a smart label combination, stock bottle A-7179 is a sales winner.

SPRUCE-UP with no mark-up

Give your product a helping hand at the point of sale by styling your package to attract customer attention. You can do it, and still keep within commercial limits on container costs.

Owens-Illinois has more than 1400 different sizes and styles of stock-mold Duraglas bottles from which to choose. And you'd never guess they're stock items once we add a smart closure in the right color and set them off with eye-stopping labels.

No matter what the market conditions may be, it doesn't pay to let your package get out of the *habit* of selling.

Duraglas TRADE MARK REG. U.S. PAT. OFF. bottles are protectors of quality

OWENS-ILLINOIS GLASS COMPANY • TOLEDO 1, OHIO • BRANCHES IN PRINCIPAL CITIES

READERS' QUESTIONS

NAIL POLISH POWDER: I am desirous of obtaining a formula for a powdered nail polish to be used with a nail buffer. Baton Rouge.

I think one of the following two formulas will serve your purpose:

Tin oxide	**90.0 per cent**
Titanium dioxide	**8.0 " "**
Oleic acid	**2.0 " "**

Tin oxide	**70.0 per cent**
Talc	**20.0 " "**
Rice starch	**10.0 " "**

WATERLESS HAND CLEANER: We would appreciate it if you could help us with a formula for "waterless hand cleaner." The active ingredient in most of these we believe is kerosene which is emulsified to make a heavy cream. Some contain ammonium hydroxide, others are odorless. Minneapolis.

In a recent comment on the formulation of waterless hand cleansers, it was noted that such products could be prepared as jellied solutions of kerosene-like hydrocarbon with a high water content. The gelling agent may be a sodium or potassium soap, present in such amounts as are necessary to give the plasticity desired. This, it was suggested, could be tempered by the inclusion of a small amount of an emulsifier, such as glyceryl monostearate. In actual formulation, such a product would require something like five per cent of glyceryl monostearate, 10 per cent of stearic acid, enough alkali to neutralize about two-thirds of the stearic acid, between five and 15 per cent of a suitable hydrocarbon solvent, and enough water to complete the product.

NON-DRYING HAIR "TONIC": I am unable to find the information I want to complete my hair and scalp tonic. My formula is as follows: resorcinol monoacetate, menthol, betanaphthol, propylene glycol, sodium lauryl sulfate, ethyl alcohol, witch hazel and distilled water. This formula has worked very nicely, but I would like a suggestion as to an agent to decrease the drying effect of the alcohol, but I do not want to decrease the alcohol content. I will more than appreciate any formulas you might have, or any suggestion you might have as to any oil I might use in my preparation. Kansas City.

It is my thought that your product could probably be improved in this respect by the use of a small proportion of castor oil. A much simpler preparation than the one you are using, one which is given in a well-known medical reference text, calls for the use of:

Rescorcinol monoacetate	**8.00 Gm.**
Castor oil	**8.00 cc.**
Lavender spirits	**30.00 cc.**
Alcohol, to make	**240.00 cc.**

Apply to scalp daily with gentle friction.

COUGH SYRUP: Will your Reader's Questions department give me information on the preparation of a cough syrup? Taiwan.

I should like to point out that there are a number of preparations that can be used in the treatment of coughs. However, in a standard preparation of this sort, the following Syrup of Codeine and Chloroform, is designed to depress the cough reflex:

Codeine phosphate	**0.25 Gm.**
Spirit of chloroform	**5.00 cc.**
Glycerine	**8.00 cc.**
Syrup cherry, to make	**120.00 cc.**

Each 4 cc. contains 8 mg. codeine phosphate. I should like to point out that the dosage of codeine as an antitussive agent is 8 mg.

SULFATED CASTOR OIL: Can you give us any information on the uses of sulfated castor oil? Cleveland.

Insofar as cosmetics are concerned, sulfated or sulfonated castor oil, is used principally in soapless shampoos and for solubilizing perfumes, oils and similar materials. It is also used as an emulsifier, wetting agent and as an addition to hair setting preparations to prevent scale formation.

ALMOND CREAM: As we are one of your subscribers to Drug & Cosmetic Industry, *we are wondering if you can furnish us with an inexpensive formula for an almond perfumed cream or lotion and if so would appreciate your submitting same to us. New Orleans.*

I am not quite certain as to just what you mean. Of course, an almond perfume effect can be obtained by incorporating a suitable perfume agent or almond compound which are available from regular perfume supply houses, many of which advertise in our publication.

However, I am assuming that you want a formula for an almond cream or lotion. Perhaps the following formula for an almond cream liquid will serve your purpose:

Sweet almond oil	**1 lb.**
Spermaceti	**2 lb.**
Beeswax	**2 lb.**
Castile soap, powdered	**3 lb.**
Borax	**2 lb.**
Quince seed jelly	**1 lb.**
Alcohol	**1 pt.**
Water	**4 pt.**

Melt the spermaceti and wax together. Dissolve the soap and borax in hot water. Mix these together and add balance of ingredients. Stir and filter through cloth.

HIGH SPEED LABELING with NO CHANGE PARTS

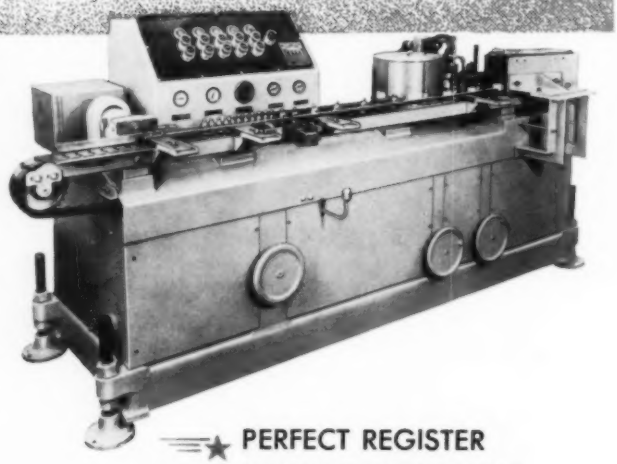
on Round, Flat or Tapered Containers...

Here is a labeling machine so simple to operate, so economical to run, that it has proven practical for *short*, as well as long runs.

on the Label-DRI*

LABELING WITHOUT GLUE!

With none of the variables associated with use of glue. No viscosity to check and correct, no water to add. No blisters or loose edges, and *always* perfect register. Used on as many as four different sizes *without change parts* simplifies operation; saves high cost of change parts on varying sizes!



- PERFECT REGISTER
- NO GLUE PROBLEMS
- CAPACITY UP TO 360 P/M
- FULLY AUTOMATIC

Ask for details or demonstration: *Reg. U. S. Pat. Off. 906

NEW JERSEY MACHINE Corporation

AUTOMATIC LABELING · PACKAGING — PAPER BOX MACHINERY · MAKERS OF THE PONY LABELRITE

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325 W. HURON ST., CHICAGO 10, ILL.
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MANAGEMENT FORUM

By Francis Chilson
INDUSTRIAL CONSULTANT

The Veep

At the recent meeting of the A. D. M. A. I was one of a captive audience compelled to listen by force of circumstances to that bellowing buffoon Alben Barkley. When I say "captive" I mean it in a literal sense, because the Secret Service men, assigned to protect the Vice President of the United States, had insisted that all doors, including the fire exits, from the main dining room of the Greenbriar, be locked. The object of this precaution, of course, was to prevent anybody from doing the country a service by shooting the old windbag. It is a universal truth that vice presidents of business organizations are expendable, and I suppose this law applies as well to a Vice President of the United States who, since he has nothing to do anyway, wouldn't be missed if somebody did take a potshot at him.

Since I was a guest and the Vice President was a guest I would not have minded enduring patiently the senilities of this bellowing boob if I hadn't been actually locked in. Nothing much worse than this could have happened in Russia, for assuredly it is an American right not to listen to anyone to whom one does not wish to listen. If the Secret Service felt so concerned about the veep's safety they could have arranged to post men at each exit so that in the event of fire, the guests could have gotten out of the dining hall in a hurry. Thus, too, if anyone got sick at the stomach listening to the inanities of this ranting demagogue he could have left the room without being permitted to return by the Secret Service guards. And who would have wished to?

I understand that Barkley came, not so much as a guest of the Association, but as a paid lecturer. I understand further that his fee is pretty high, and it includes expenses not only for himself but for his wife as well. It is disturbing to think that the morality of public officers is so low that they will debase their offices for a fee.

But perhaps I am all wrong. According to Time Magazine (May 14, 1951), Barkley was asked in El Paso why he spent so much time on speaking tours. This was his answer: "Since most of the American people can't afford to come to Washington to see the Government, I feel it is my duty to bring the Government to them."

I don't suppose Time Magazine knows that he "brings the Government" to the people for a substantial fee. Speaking as one individual, I should like to make the observation that if this bombastic boor represents the Government, we are certainly in a hell of a bad way.

Production Potential

Twice in the past I have quoted authorities to show that the production potential of this country is so great that we can have guns and butter too, if we really get in and pitch, and do not run out of certain critical raw materials for which, as yet, there are no substitutes. I was interested to note on re-reading Thorstein Veblen, that thirty years ago he was fully aware of the enormous productive power of this country when he said: "And all the while it is an open secret that with a reasonably free hand the production experts would today readily increase the ordinary output of industry by several-fold—variously estimated at some 300 per cent to 1200 per cent of the current output. And what stands in the way of so increasing the ordinary output of goods and services is business as usual."

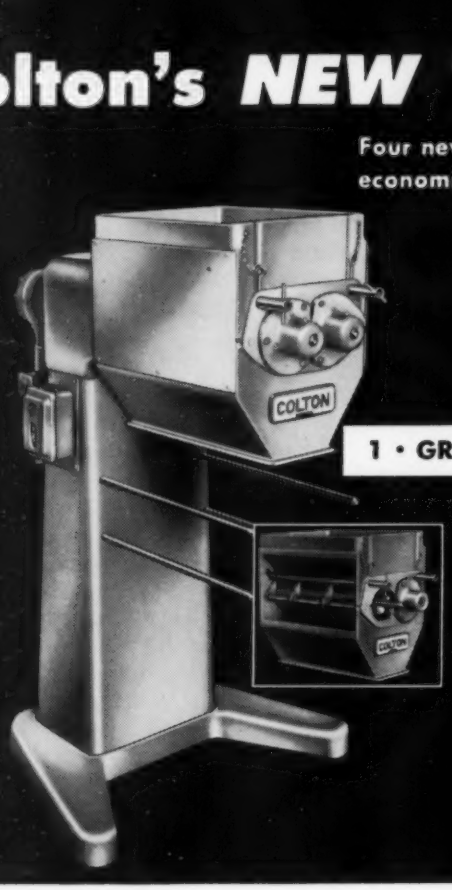
All we need is wise political and financial leadership. Given these we can produce a volume of goods that will make the best effort of World War II seem but a rehearsal.

Sir John Walmsley

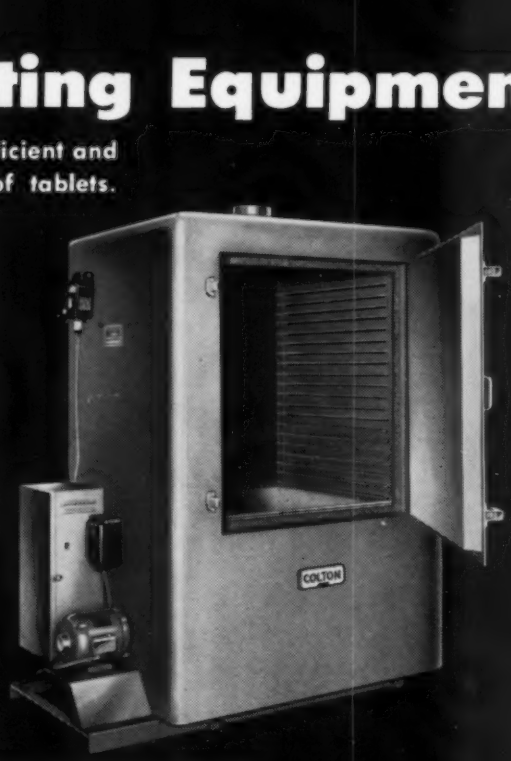
Every once in a while England unintentionally sends over a bloke who does more good for Anglo-American relationships than all the high hats and striped pants that ever came across. Such an ambassador of good

Colton's *NEW* Tableting Equipment

Four new units for the efficient and economical production of tablets.



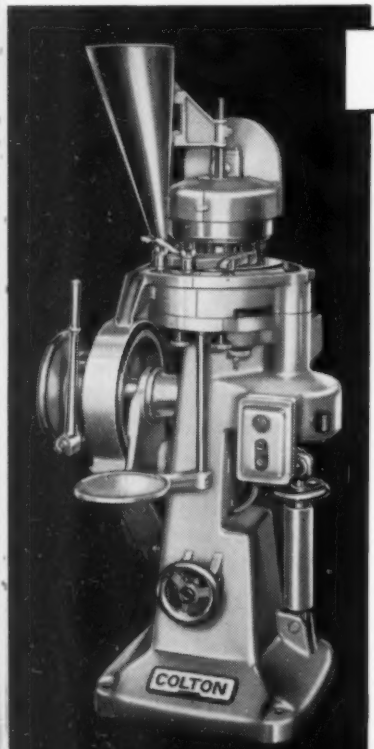
1 • GRANULATOR



2 • DRYING OVEN

1 • New Colton No. 44 Twin Rotor Granulator has double the screen area plus continuous rotary operation, thereby giving 2½ times the capacity of ordinary, oscillating granulators. Delivers to trays, drums, bags. Dustproof. Accessible. Quick-change screens and rotors. Standard or stainless steel.

2 • Model 1030 takes 10 trays; 2030 takes 20 trays, 30″ x 30″ x 1″. Double steel shell, fully insulated with rock wool. Positive, uniform circulation of air from high-speed fan. Dampered inlet and outlet. All controls outside. Safety latches. Electric, gas or steam heat.



3 • ROTARY TABLET PRESS

New Colton No. 216 Rotary Tablet Press makes up to 800 tablets a minute; maximum diameter ⅝″; maximum depth of fill 11/16″; maximum pressure 6000 lbs.; 16 punches and dies, easily changed. Variable speed drive; standard 1 HP motor. Fast, accurate, dustproof.

4 • COATING *and* POLISHING STAND

For pans up to 30″, new Colton No. 6; over 30″, new Colton No. 6A Coating Stand. Driven direct from motor through gear reducer; no belts; no slippage under load. Shafts mounted on anti-friction bearings; gears completely enclosed, running in oil. Motors ¾ HP and 1 HP polyphase.

Write for literature on these and other Colton pharmaceutical machines and name of nearest Colton field office.

ARTHUR COLTON COMPANY

Div. SNYDER TOOL & ENGINEERING CO.
3405 E. Lafayette Detroit 7, Michigan
Offices in Principal Cities

SPECIALISTS IN PHARMACEUTICAL AND PACKAGING MACHINERY FOR OVER 65 YEARS

will is John Walmsley, Vice President of the British Proprietary Association and Director of Aspro Ltd., my very good English clients. Sir John created a lot of good will because he brought it with him. I was supposed to look after him while he was in New York and we wound up by Sir John looking after me. By that time, God knows, I needed a guardian. We went round all over New York from hell to Harlem. John said he liked hell a bit better because "It's a bit more like home since austerity." I introduced him to a number of the stalwarts of the industry who did their damndest to twist the tail of the British lion to make John roar bloody murder. But in fairness it must be said that every time we gave the lion's tail a twist Sir John, with perfect equanimity, made the eagle scream by pulling a feather out of its bum. The score was even.

Sir John came over here among other purposes to address the recent meeting of the Proprietary Association, which he did with considerable grace, considering where he had been the night before. He came over here a simple, British citizen and he leaves our shores a Knight. We elevated him to the peerage by tapping him on the noggin—in the absence of the King's broadsword—with a baseball bat, which Sir John said wasn't quite cricket because if we had any knowledge of good form we'd have done it with a cricket bat. However, we did our best for him—and he for us—and he is now listed among the immortals in Burke's Peerage—Burke being a friend of mine who owns a pub on Third Avenue known as the Klondike Bar. We did our best to keep him up all night for several nights seriatum but every morning he was Johnny on the job doing the work he had to do—though how he managed it I'll never know. It must be the fish those Britishers eat. At the end of the week it was the consensus of all who had the pleasure of being with him that "this guy Sir John is just like an American." I rather imagine he was glad to get away from New York at the end of the week. But he'll be back. God help me!

Private Brands

A friend of mine of many years' standing, Frank Carey, is operating a firm in Clifton, New Jersey, known as "Private Brands Incorporated." As its name indicates this firm specializes exclusively in the production of private formula pharmaceuticals and cosmetics. A number of large pharmaceutical firms have had their sampling campaigns handled by Private Brands. Carey makes something of a specialty of this since he has a wide variety of very flexible equipment and can set up quickly to turn out a lot of stuff on short notice.

Cosmetic Mores

Since I rapidly am becoming one of the elders of the industry it is possible to look back to the beginnings of the cosmetic industry and to reflect on the changing mores that have made this industry great. Consider this: When I was a kid in high school prior to World War I, face powder was not worn by "nice" girls while lipstick and rouge were worn only by show girls and harlots. Actually they didn't have lipstick then—they used paste rouge. I remember the scandal that went through high school like a grass fire when it was discovered that one of the girls was "fast." It was found that she was *actually* using face powder! It is needless to say that all the boys were after her like a pack of hounds and I rather imagine she enjoyed the chase, although I am certain that none of the hounds ever did anything but bay. Then the world started going to hell—the high school girls started wearing middy blouses, bow ties and bloomers. It was then we discovered that girls had legs. When you come to think of it it wasn't a bad discovery at that. Along came World War I and the brazen hussies began to wear rouge and lipstick and what was even worse they actually began to smoke. God's truth! what's to become of us all? It was then that the cosmetic industry got its tremendous initial impetus which has kept it snowballing ever since, till we have now reached a point where we not only have cosmetics for kids but we put rouge on baby's bottoms. It looks much better than diaper rash.

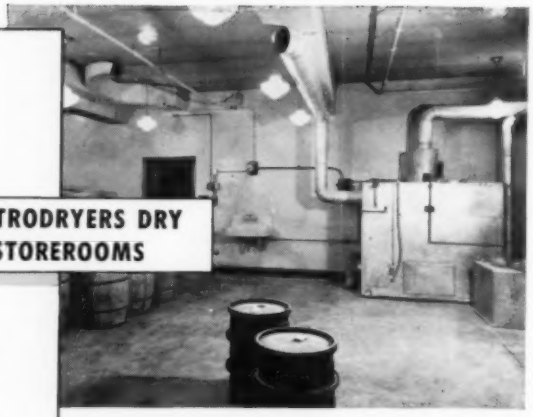
Short Grass

After having pushed a lawn mower for several years it has occurred to me that you chemical buzzards have overlooked a tremendously important market, namely grass. You produce all manner of products to stimulate the growth of grass, and you produce chemicals to kill weeds that compete with grass—why the hell don't you produce something that will restrict the growth of grass? You have to push lawn mowers yourselves, don't you? Get busy.

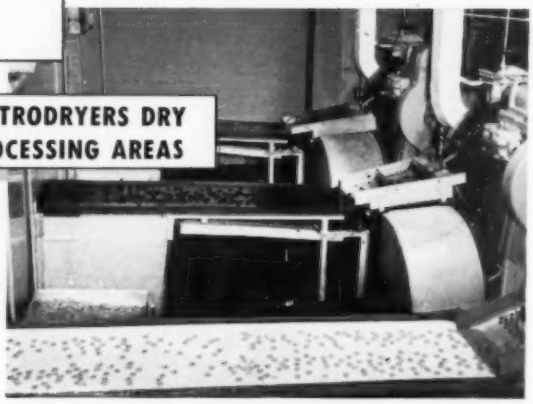
Veterinary Products

Firms who are accustomed to the production of medicines for human use usually ignore the tremendous potential in the veterinary field. Some firms not only ignore it but abhore it because dabbling attempts in the past to exploit this market led only to substantial losses. Time was when a substantial part of veterinary output was devoted to products for horses. Horses were very important animals not so long ago and farmers, who knew a great deal about the ills of horses, knew virtually nothing about diseases of cattle, swine, sheep or poultry. When I was a boy on the farm the loss of a good horse was a serious matter. The loss of a good cow didn't mean very much. Farmers expected cows and other livestock to die for one reason or another and never got very much excited about it unless an epidemic occurred. Now cows are very valuable animals because the consumption of dairy products and beef is increasing at such a rate that production is unable to meet demand. Consequently beef and dairy animals are becoming steadily more valuable. At the same time farmers are becoming better educated and realize that the loss of any animals, however small, is a loss of operating profit. Hence increasing amounts are spent annually to combat the diseases of livestock.

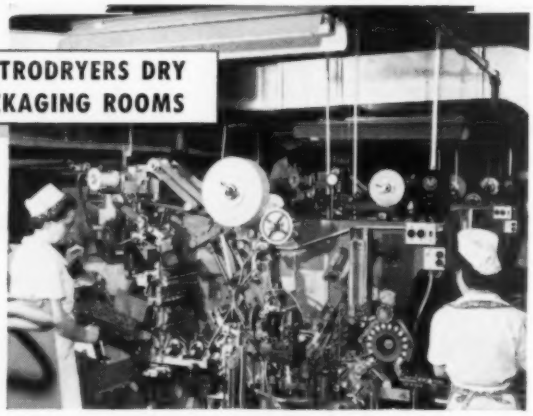
Why let WETth in when you . . . have to take it out



LECTRODRYERS DRY STOREROOMS



LECTRODRYERS DRY PROCESSING AREAS



LECTRODRYERS DRY PACKAGING ROOMS

WETth—moisture you can't see or feel—bucks production schedules from every angle. Here's how:

Air in storerooms is loaded with moisture. Raw materials like sugar, salt, flour and chemicals soak it up; finished products deteriorate rapidly under its influence. Lectrodryers remove that moisture, safeguarding your products.

Unwanted moisture in manufacturing areas, like the candy hardening room and tunnels shown here, slows down and stalls production. Lectrodryers hold humidities at uniformly low levels, letting work proceed at a fast clip, regardless of outside weather conditions. No gumming or sticking to waste time and money.

Are you wondering what WETth is doing to your production? Mail the coupon today for evidence of how other manufacturers are using Lectrodryers to eliminate their troubles with unwanted moisture. Pittsburgh Lectrodryer Corporation, 309 32nd Street, Pittsburgh 30, Pa.

In England: Birmingham Electric Furnaces, Ltd., Tyburn Road, Erdington, Birmingham.
In Australia: Birmingham Electric Furnaces, Ltd., 51 Parramatta Road, Glebe, Sydney.

MAIL THIS COUPON ➡

LECTRODRYER

REGISTERED TRADE MARK U. S. PAT. OFF.

Pittsburgh Lectrodryer Corporation
309 32nd Street, Pittsburgh 30, Pa.

Send me data on Lectrodryers.

Name_____

Title_____

Address_____

There has been a tremendous increase of interest in products that will promote the growth of animals or increase of the nutritive quality of animal feeds. Farmers realize that time and feed consumption are vitally important factors in operating profitably.

Hence the veterinary field is growing very rapidly and it is a *tonnage* business because of the large dosages that are required. Yet many of the veterinary products on the market today are old-time standard formulas which in many instances are worth very little. At the same time many of the old line veterinary houses are at the switch doing no research work whatsoever and therein lies the opportunity for the alert drug manufacturer.

The Power of Ideas

"The ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed, the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist. Madmen in authority, who hear voices in the air, are distilling their frenzy from some academic scribbler of a few years back. I am sure that the power of vested interests is vastly exaggerated compared with the gradual encroachment of ideas. Not, indeed, immediately, but after a certain interval; for in the field of economic and political philosophy there are not many who are influenced by new theories after they are twenty-five or thirty years of age, so that the ideas which civil servants and politicians and even agitators apply to current events are not likely to be the newest. *But, soon or late, it is ideas, not vested interests, which are dangerous for good or evil.*" (*J. M. Keynes*).

$2 Day

We've had dollar days for years. I think Rexall started the idea. But it has remained for Cutter Laboratories to give us a $2 Day. You could expect the Cutters to raise the ante or maybe it's just another sign of inflation. No, this isn't a sales scheme. It was Fred Cutter's idea to impress the local community with the importance on an industrial payroll by paying everybody in Cutter's employ with $2 bills. Since $2 bills are not much in use a flood of them in the Bay area with the appropriate publicity would focus attention on the importance of any industrial payroll—not only Cutter's. It was a good idea, a damned good idea. Fred thunk it up all by himself. I wonder what he had been drinking the night before. I suspect though that he came out short in a crap game the night before when a two dollar bill showed up and he set out to break the hex by inflicting them on everybody.

German Tableting Machines

Perl Machine Manufacturing Co, 68 Jay St., Bklyn. 1, N. Y. have been appointed American agents for Friedrich Horn, Machine & Engineering Works, Worms A. Rhein, Germany. These machines will turn out up to 112,000 tablets per hour. They are all rotaries and are beautifully engineered and finished. The Bayer Co. of Germany have a large battery of Horn presses. You should get literature on these machines.

Another Payroll Policy

A personnel program as broad in benefits as any, and surpassing most, has been introduced to the employes of John Powell & Co., Inc., suppliers of insecticide materials, and to the employes of its several affiliated companies.

The program is unusual in that it is completely nonparticipating—that is, employes are not required to contribute to it—although the benefits are very broad and include part ownership in the Company.

Upon employment, new employes immediately share in the benefits of Overtime, Accident and Holiday policies, continuance of seniority rights in event of temporary absence, and disability insurance wherever state laws do not provide for it.

After six months of service, employes gain the additional benefits of a Year-End Bonus Plan, Armed Forces bonus, Vacation Policy, salary review and additional sick leave benefits, as well as termination pay in event of lay-off or severance.

One year of employment earns additional Hospital Service Insurance plus increased seniority rights under the program. Two years of service entitles the employe to membership in a Group Life Insurance program, at no cost to the employe.

A retirement Income Plan goes into effect after three years, and in the fifth year of service the employe begins to share in the ownership of the Company through a stock bonus plan, still at no cost to the employe. The amount of stock awarded to employes increases with years of service.

With each additional five years of service, special cash bonus awards ranging up to $500 are given in recognition of service.

Mr. H. Alvin Smith, president of the Company and initiator of the program, stated that "it is only appropriate that we find a realistic and practical way to show our recognition of the importance of the employe to the success of our business enterprise."

"In the final analysis, whatever a manufacturing company offers can be summed up in the two words, quality and service. These depend almost 100 per cent upon the individuals in its employ.

"We hope to keep with us for a long time to come the fine people now on our team, and whenever openings occur, to attract the finest personnel in our industry to join us."

A 36-page booklet describing the program in full may be obtained by writing to the Executive Offices of the Company at 1 Park Avenue, N. Y.

Imprinting

"A New Approach to Package Imprinting" is the

title of a 6-page brochure recently released by Adolph Gottscho, Inc., makers of package imprinting and coding machines.

The brochure shows graphically how a variety of nationally known producers of food, cosmetics, drugs, textiles, automotive parts and other products imprint supplementary information on their packages automatically as an integral function of the packaging operation. These supplemental imprints range from complete contents descriptions to code-dates, and include colors, sizes, flavors, prices, etc.

Also described in the handsome 2-color piece are various models of the Gottscho "Markocoder" machines for imprinting cartons, boxes, cans, canisters, jars and bottles.

A copy of "A New Approach to Package Imprinting" may be obtained free on request to Adolph Gottscho, Inc., Hillside 5, New Jersey.

The following information is supplied by manufacturers of the equipment described and claims made below by these manufacturers are passed along for what they are worth. Presentation of such notice in this department is not to be taken as endorsement of the claims or of the equipment.

Industrial Filter Unit

F. R. Hormann & Co., Inc., 17 Stone Street, Newark 4, N. J., present their smallest industrial filter unit, which has a 10" square frame size, can be operated with 4 to 8 pads, and incorporates many outstanding and valuable features.

The heavy nickel plated bronze castings construction of all standard machines insures great strength and life-long service. Due to precise machine work, all parts fit exactly and the assembled machine is in complete alignment. Stainless steel backing wire and perforated metal screens are used for the plates and stainless steel rods are used for the main filter supporting rods. Supporting stands are gray iron castings with heavy steel base plates. The machines are mounted on sturdy iron casters for easy portability and convenience. If desired, filters can be constructed of other materials, such as aluminum, stainless steel, etc., to meet specific requirements.

Self-priming rotary gear pumps are standard with all machines and are driven with V-belts, providing maximum efficiency and safety. Another notable advantage of this small unit is that all pumps are arranged so that they can be used independently of the filter for transferring liquids from one container to another.

Further information may be obtained by writing for a copy of the Horm Filter Catalogav ailable from the manufacturers.

Three-in-One Heavy Duty A.S.M.E. Mixer

For pilot runs whether to simulate production conditions and formulae or in the laboratory—small one-pint, one-quart and two-gallon models are offered.

L. O. Koven & Brother, Inc., Jersey City, N. J., has produced a new heavy duty A.S.M.E. mixer for processing and blending viscous compounds, such as plastic compounds, heavy chemical solutions, solids suspended in heavy liquid vehicle, and the like.

The 36" diameter mixer is welded in accordance with Paragraph U-69, A.S.M.E. Code, for vacuum operation.

A full steam jacket is provided for heating the product during the mixing process. The cover which is gasketed and bolted to the tank is provided with an 11" x 15" hinged manhole and a 4" slightglass. The outlet valve is located on the bottom of the tank. A thermowell projects into the side of the tank near the bottom.

An 18" diameter turbine type impeller is driven at approximately 125 r.p.m., by a 2 h.p. explosion-proof motor through a speed reducer. To augment the impeller, three baffles have been equally spaced in the tank, projecting radially along the cylinder but mounted one inch away from the cylinder wall.

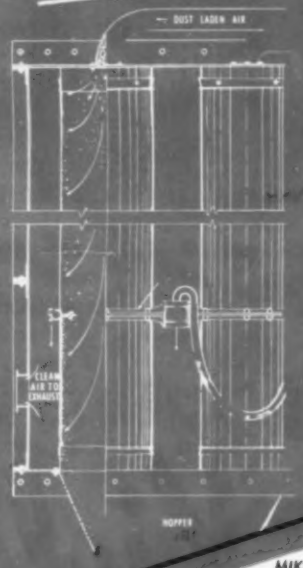
The rotation of the turbine, because of the pitch of its blades, gives the material a combined peripheral and upward motion. As some of the material strikes the baffles it is turned back to give it an extra rotary kneading or turn-over action. At the same time some of the material flows between the baffle and the cylinder wall which gives it a shearing effect. Thus, the entire mass goes through a continuous suction, dispersion, kneading and shearing cycle which rapidly disintegrates and distributes uniformly and intimately any solids in the vehicle or homogeneously mixes fluids of dissimilar specific gravity and viscosity.

Lab Air Pumps

There is a need in many facets of laboratory and industrial work for pressure and vacuum pumps which are small and compact in design yet highly efficient in operation. The firm of George A. Thiberg, Cedar Knolls, New Jersey, has recently begun mass producing such products. Many uses for them will be found in

IF IT'S GOOD ENOUGH FOR ULTRA-FINE RADIOACTIVE DUSTS

IT'S IDEAL FOR YOUR MOST HAZARDOUS JOBS



Sectional view of MIKRO-COLLECTOR showing felt filter bags and reverse jet cleaning ring.

10 Reasons
why a MIKRO-COLLECTOR
will best help you win a war with Dust

1. **Phenomenal Filter Rates**
2. **Highest possible recovery of solids**
3. **Requires less filter surface, floor area**
4. **Extreme simplicity, low upkeep, minimum attention**
5. **Selected wool felt filtering medium**
6. **Reduced number of filter bags; quick changeover**
7. **Continuous, fully automatic operation**
8. **Uniform air flow**
9. **Easy handling of dust loads, damp or dry**
10. **Thorough survey and diagnosis of dust problem**

The MIKRO-COLLECTOR* has virtually no rival in the collection of radioactive dusts of ultra-fine particle size. For among many other triumphs, it has scored a spectacular record in the handling of such dusts. Its installations for this purpose alone, during the past year, have a combined capacity of more than 100,000 cfm.

We can show you data which should leave no doubt in your mind that a MIKRO-COLLECTOR can handle your job economically and efficiently, if it falls in either of these classifications:

1—*Elimination of atmospheric pollution—regardless of the dangerous or noxious quality of the dust, or the minute size of the dust particles.*

2—*Full recovery of a valuable product.*

This is made possible by the MIKRO-COLLECTOR's pressed felt filter medium and its Hersey reverse-jet cleaning ring, which assure phenomenal filter rates and the very highest dust recovery.

SEND FOR—**actual sample of the felt used in a MIKRO-COLLECTOR. See for yourself how it helps you *"turn dust into dollars."***

Photo-micrographs illustrate value of wool felt as a superior filter medium.

Photomicrograph (25 diam. enlargement) of special, pressed wool felt... Drawing shows how dust particles are trapped by density of felt while air flows through in constant volume.

Photomicrograph (25 diam. enlargement) of ordinary filter cloth... Drawing shows how dust can escape through open mesh.

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**Patents applied for by H. J. Hersey, Jr. and Pulverizing Machinery Company*

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cadet model

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for

FACIAL CREAM
SALVE—OIL—GREASE
WAX—PAINT

IDEAL for filling those attractive polyethylene containers ——

Your dream of a machine . . . featuring all-day long speed, up to 60 quarts a minute . . . and at no sacrifice in smooth, neat, accurate delivery. Doing everything that *your* ideal filling machine would do. Yes, sir—here it is!

For greater speed, there is its "Big Brother"—the heavy duty, fully-automatic high production KARL KIEFER VARI-VISCO.

The Karl Kiefer Machine Co.

CINCINNATI, U. S. A.

NEW YORK—BOSTON—CHICAGO—BALTIMORE—SAN FRANCISCO—SAVANNAH—LOS ANGELES—LONDON, ENGLAND

laboratory and medical fields. Boonton Molding Company molds the housing parts with American Cyanamid Company's BEETLE Plastic. As a result, the units are silent in operation and can be turned out in quantity economically.

The air pumps are available in two models. Model 1 can be obtained either as an air pressure pump or as a vacuum type. Model 2 is an air pressure type in a larger size.

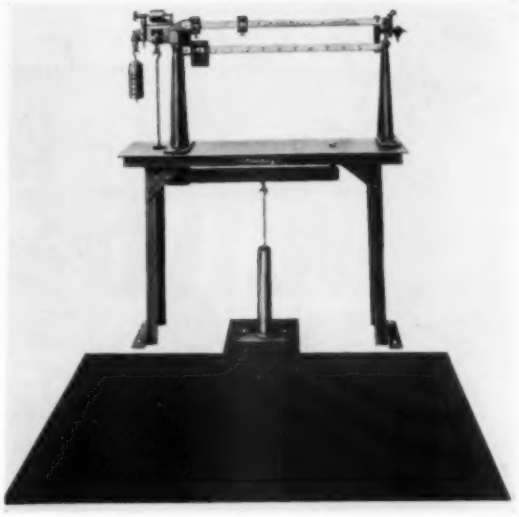
The Thiberg pump comprises a vibratory rubber diaphragm mounted to an armature and held within a housing containing necessary inlets and outlets and other mechanical parts. Alternating current applied to an electromagnet is also mounted within the housing. This causes the armature and diaphragm to vibrate, thus setting up a suction in the chamber where air is drawn into and discharged from the pump. The device, completely enclosed in a durable plastic housing, is approved by the Underwriters Laboratories and operates on 110 volt A.C. currents. It requires no oiling and is built for continuous operation.

Model 1 which measures 4″ in height and 3″ in diameter delivers approximately 800 c.c. per minute and has a maximum pressure of about four to six pounds. More than 100,000 of these pumps have already been sold as pressure units for aeration and water filter apparatuses used on fish aquariums.

As a vacuum pump, Model 1 is used in the surgical and hospital field. In many ways, it is superior to the cumbersome vacuum pumps and devices which have been used in the past. It creates a vacuum of about twelve feet of water and has proved useful as a pump for circulating air of gasses in a closed vessel. Some of the clinical uses which it has been put to are: intratracheal suction; atelectasis, etc.; thoracic surgery and any open chest operation; transdiaphragmatic; surgery through thorax; bladder operations; abdominal distension, and many other suction purposes.

Model 2 pump is slightly larger unit measuring 5½″ in height and 4″ in diameter. It has a much larger output of air, approximately 3,000 c.c. per minute and will give a maximum pressure of eight to ten pounds. Since it has just been placed on the market, it is not possible to mention all the fields in which this pump will be useful.

The firm, George A. Thiberg, will furnish all information and assistance to those interested in these products.



Platform Scale

A new platform beam scale designed for fast accurate low-cost industrial weighing applications was announced recently by The Yale & Towne Manufacturing Company, Philadelphia Division.

Called the Load King, the new Yale scale is designed primarily for heavy-duty industrial applications where "shock-loading" is the rule. The lever system in the platform is all-steel as are other key parts.

Poises on the main bar are mounted on roller bearings for rapid positioning. Other features of the new scale include a 100 per cent end loading platform that gives the same reading regardless of the location of the load on the platform. The platform, which is mounted on outboard bearings also absorbs the shock of moving loads without damage to the scale. It will not tip.

Pit requirements for the Load King are only 11 inches, saving considerable expenditure on excavation when the scale is installed. The new scale is built in capacities up to 6,400 pounds. Platforms for the new scale range from 46 x 38 to 76 x 54 inches.

New Stainless Steel Fittings

A complete, new selection of stainless steel tube fittings designed to meet unusual piping conditions, has just been announced by The Special Screw Products Co., manufacturers of Koncentrik Falared-Tube Fittings. These new couplings (any combination through 1″ is available) permit different sizes of tubing, or tube-pipe combinations to be joined in a single fitting. This feature completely eliminates the need for supplementary reducing couplings at which line leaks might occur. In addition, installation costs are held to a minimum because one fitting does the work of two or three.

Another exclusive superiority is the reinforcing Teflon rings that double-seal the seat to further guard against costly, dangerous gas or liquid losses. For further information write or wire The Special Screw Products Co., 5445 Dunham Rd., Bedford, Ohio.

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GUAIACOL CARBONATE
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Breaking Emulsions with Chlorophyll

In their report in the *Analyst* (75:169, 1950), I. C. Edmundson and B. J. Wilkins state that during the extraction of alkaloids in alkaloidal assays of solanaceous drugs it was noticed that the emulsions became worse as the chlorophyll was extracted. Quantities ranging from a few drops to a few ml. of a 5 per cent solution of chlorophyll in chloroform were therefore added to the emulsions. Breaking began immediately on shaking and was complete within a short time. The treatment was used with success on tinctures and extracts which contained chlorophyll. Commercial spirit-soluble chlorophyll was used, a blank determination showing it to have no effect on the final titre. Any tendency to emulsification in the subsequent acid extractions can be prevented if the acid layers are bulked together with any emulsion and shaken, although one extra chloroform wash may be needed to remove all the chlorophyll.

Bentonite Tar Ointments

Coal tar preparations, says D. M. Skauen (*J. A. Ph. A.*, Pract. Ed. 12:174, 1951) are extensively used in the treatment of various skin disorders, but it suffers from the disadvantage of being a very disagreeable substance to apply. A search was therefore made to provide products which would satisfy cosmetic appeal and also have therapeutic value. One result of these studies was the development of the following Bentonite Tar Ointment No. 1, which has been used clinically for more than eight years with favorable results in certain skin conditions:

Coal tar solution ..... **16 cc.**
Bentonite ..... **8 Gm.**
Distilled water ..... **18 cc.**
Vanishing cream ..... **8 Gm.**
Zinc oxide paste N. F. ..... **50 Gm.**

Mix the coal tar solution with the water, add the bentonite, and stir until thick. Transfer to an ointment slab and levigate to a smooth paste. Incorporate the vanishing cream and the zinc oxide paste by levigation. Store in nonmetallic, well-closed containers.

In addition to this ointment, three other Bentonite Tar Ointments were developed for use in the treatment of allergic skin conditions. The base for Bentonite Tar Ointment No. 1 proved to be so satisfactory that it was used for the other three ointments. The changes, which consist of substituting various strengths of crude coal tar for coal tar solution, are given in the following table:

	Ointments			
Ingredients	No. 1	No. 2	No. 3	No. 4
Coal Tar Solution	16 cc.			
Crude Coal Tar		2 Gm.	5 Gm.	10 Gm.
Bentonite	8 Gm.	8 Gm.	8 Gm.	8 Gm.
Distilled Water	18 cc.	32 cc.	29 cc.	24 cc.
Vanishing Cream	8 Gm.	8 Gm.	8 Gm.	8 Gm.
Zinc Oxide Paste	50 Gm.	50 Gm.	50 Gm.	50 Gm.

To manufacture ointments 2, 3, and 4, a paste is first made with the bentonite and water. This is then transferred to an ointment slab and levigated to a smooth paste. The crude coal tar is then incorporated followed by the vanishing cream and the zinc oxide paste. Store in nonmetallic, well-closed containers. Bentonite Tar Ointments Nos. 2, 3, and 4 have been used clinically for more than six years with considerable success.

The vanishing cream used in these ointments is made from:

White petrolatum ..... **225 Gm.**
Paraffin ..... **100 Gm.**
Liquid petrolatum, light .. **412 cc.**
Diglycol stearate ..... **325 Gm.**
Glycerin ..... **75 cc.**
Distilled water (preserved with butyl-p-hydroxybenzoate ..... **1400 cc.**

Powdered Silk as a Color Carrier

In a concise survey of the coloring agents used in cosmetics, J. Morelle (*Internal. Perfumer* No. 3, p. 33, 1951) calls attention to the utilization of powdered silk as a carrier for dyestuffs. In the same way as the mineral elements are used, powdered silk can be used as a carrier to give special lakes. Dyeing of the powdered silk can be achieved by simple tinctorial action in the presence of a mordanting agent. The small particles of silk are dyed in the same way as a textile. Examination of these dyestuffs through a microscope reveals small colored rods, which can advantageously be used for coloring silk base face powders. If it is desired to color a powder that does not contain any silk it will be necessary to add a relatively substantial quantity of these dyestuffs.

In lipsticks, Morelle feels that powdered silk can advantageously be used for fixing precipitated eosine type pigments. The silk is a powerful absorbent of the precipitated dyestuffs and on contact with the moist mucous membrane, the excess dyestuff easily separates and thus colors it by tinctorial action.

Ultra-Vibration Dispersions

Ultra-vibration dispersion techniques, based on Plauson's patents, have been reviewed by I. Irion (*Perf. u. Kosmetik*, through *Perf. & Essent. Oil Rec.* 41:300, 1950). This technique makes use of periodic pressure fluctuations of high frequency and amplitude for the dispersion of liquids, and finely divided materials in liquids. It has something in common with supersonic sound. It is therefore a physical method of making colloidal solutions, or relatively stable emulsions of non-miscible liquids without the use of emulgators or protective colloids.

However, applying supersonic vibration to large-scale manufacture is difficult, because the apparatus usually employed depends on natural quartz crystals of limited size, which restrict the space of reaction. The ultra-vibration dispersion technique mechanically creates supersonic vibration. This can be explained by comparison with the workings of a siren, which consists of a rotating disc provided with a number of holes corresponding to a similar set of holes in the wind-chest through which air is blown, and the holes opened and closed in quick succession. When the number of holes is known, the pitch is dependent on the speed of rotation of the disc, and this can be increased until it reaches the limit of audibility. If the air is replaced by a liquid medium, periodic pressure fluctuations will appear. The speed of rotation is limited only by the hardness of the rotating material, and the intensity can be influenced by the construction of the oscillator. Briefly, the machine works as follows: the substance flows from a container into the pump, which forces it in stages

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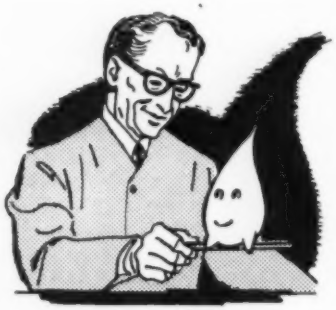
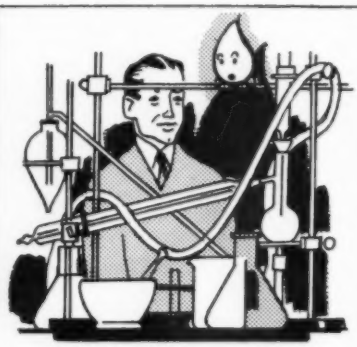
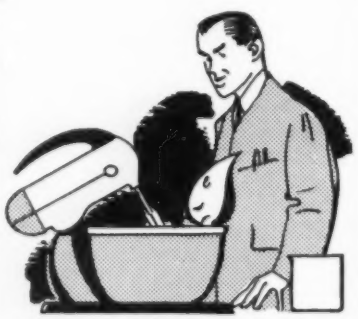


Accept our sample, then turn loose your most critical chemist and let him do his darndest.



Try to find some trace of acids, alkalies or other impurities. We're sure you won't, for the purity is "locked-in" by a U.S.P.-approved stabilizer.

Try to find some trace of odor, color or taste.



Compare its blendability, penetrating power and affinity with that of the product you now are using.

Check your findings against U.S.P. and N.F. specifications or against any other standard for purity.

Add up the score, and then compare the cost, and you will see you should be using these white oils as the base for your products!

Because we take extra care in refining the best petroleum stocks, we're confident that Penn-Drake White Oils will stand up well under the most rigid tests you can give them. They are odor-free, tasteless, colorless . . . and completely free from the acids, alkalies and all other impurities which cause your product to deteriorate with age. The price is low enough so any quality product can afford a base of Penn-Drake White Oils.

If a regular White Oil won't do for you, write your own specifications and we will follow them *exactly* in giving you a White Oil with the "slightly different" characteristics you need. *May we send our sample?*

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to the oscillator. There it is acted upon by ultra-vibration, whose frequency is in the neighborhood of the lower limit of the piezoelectric supersonic generator. It then passes a narrow ring-shaped homogenizer aperture, whose cylindrical inner surface rotates in the concentric frame, and is eventually either released to the outside or into another container of the machine for further processing until the desired degree of dispersion is reached.

Hexachlorophene Bibliography

A revised, comprehensive bibliography of the literature on "G-11" brand of hexachlorophene has just been published by Sindar Corporation of New York. This bibliography, Technical Bulletin H-1, dated April, 1951, contains references and abstracts of some 51 scientific and trade articles and abstracts of 19 patents. The bibliography is indexed so that abstracts can be located on general information concerning G-11, its use in soap, in synthetic detergents, and in various materials. A perusal of the abstracts reveals virtual unanimity among investigators on the efficiency of G-11 as a germicide in the presence of soap and synthetic detergents.

Suggestions on Lipstick Production

In discussing lipstick production, C. Doubleday (*Soap, Perf. & Cosmetics* 23: 1222, 1950) offers a number of valuable suggestions based upon his own broad practical experience. For example, in his opinion, a good triple-roll mill is almost indispensable for the commercial production of lipsticks. Some firms get along with two-roll mills, but this is false economy, for with the three-roll mill one gets a double grinding action in the same length of time. For small-scale production a 6-inch three-roll mill is satisfactory, while for larger outputs a 16-inch, three-roll mill is the type to employ. Production efficiency reaches its apex with such a mill. The process takes a little longer than with some homogenizers, but the extra time spent is amply justified by the improved results. Roll mills do the job well, are handy to use and easy to clean. A little time should be spent on adjusting them properly, in order to achieve optimum results.

Doubleday points out that ideas differ as to which is the best method of milling the pigments: with the fluid content of the formula or with the whole mass. The microscope shows no advantage either way but time is a factor, so the most convenient way is to use part of the fluid content, with part of the petrolatum or lanolin, to make a paste, and this should be stiff enough to be removable from the receiving plate with a wide spatula, or wallpaper scraper. It is then added to the hot mass, stirring slowly with each addition.

Noting that bromo acids, used to impart the familiar indelible stain, comprise tetrabromo—and dibromo-fluorescein, this authority states that it has been frequently pointed out that castor oil will only dissolve about 0.2 to 0.3 per cent of bromo acid. Even if used in mineral oil, however, in which it is not soluble at all, it will still exhibit color development on the moist lips. During the past few years there has been quite a revolution in bromo acid solvents. Most attention seems to have been paid to furfuryl alcohol and its acetate. The innocuous character of this alcohol and its esters does not seem to have been clearly established, but, from personal tests, he feels that they are apt to prove slightly irritating on a lip that has been exposed for two hours to strong sunlight and a hot sea breeze. The same products strongly irritated when tested on a small patch of *herpes zoster*, or cold sores near the mouth.

Two new solvents that have come to hand recently are diethyl sebacate and dibenzyl sebacate. These showed no sign of irritation after exposure of the lips to the sun and wind, but there has been no opportunity yet of testing them upon facial *herpes*. These sebacates are not such good solvents of bromo acid as the furfuryls, but are sufficiently efficient to warrant consideration, being obviously superior to castor oil. Diethyl sebacate is superior for lipstick purposes to the dibenzyl ester, except at consistently elevated tropical temperatures.

Another interesting compound that seems to have possibilities in this connection is isopropyl myristate. Though not introduced or recommended by the suppliers as a bromo acid solvent, tests show that it has in fact a moderate solvent action that is enhanced in the presence of diethyl or dibenzyl sebacate. Moreover, like castor oil, it is a good dispersing agent. Doubleday suggests that it be tried out in conjunction with an equal proportion of diethyl sebacate—in order to obtain the desired "modern" effect of a thin lipstick film (i.e., not greasy or mushy) with a nicely pronounced coloration. Oleyl alcohol is also useful in this respect, particularly if a grade of good odor is selected.

This worker is personally opposed to the practice of "flaming" lipsticks. This can easily lead to a distorted, pitted or otherwise malformed surface, even when an electrically heated cylinder is employed for the purpose and much more so when a spirit lamp or other naked flame is used. Good formulation should ensure a sufficiently high polish or gloss to a lipstick, without any need for recourse to flaming.

British Anti-V.D. Ointment

According to a note in the *Chemist and Druggist* (155:361, 1951), the British Ministry of Transport has issued an amendment to the medical guide used on merchant ships. The amendment includes a specification for an anti-V.D. outfit that consists of a washing cloth and a tube of prophylactic ointment to the following formula:—

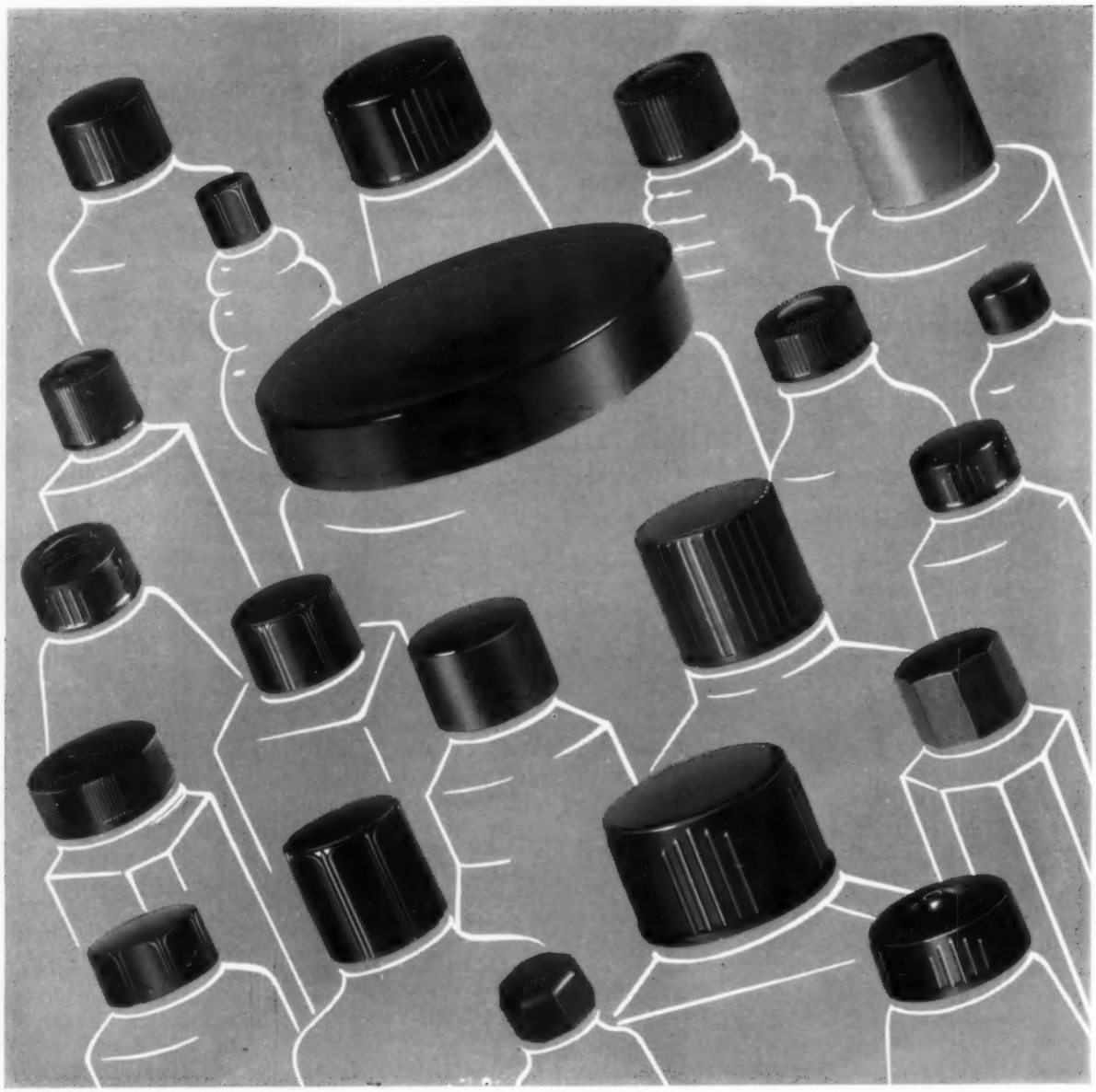
Mercurous chloride	**30 Gm.**
Sulphathiazole	**15 Gm.**
White soft paraffin	**40 Gm.**
Light liquid paraffin	**14 Gm.**
Cetyl alcohol	**1 Gm.**
Oil of lavender	**0.01 cc.**

To be supplied in collapsible tubes, with elongated nozzles and screw caps, each containing 60 grains, and labelled "Prophylactic ointment." The length of the nozzle to be not less than ½ inch nor more than ⅝ inch.

Antioxidants for Carotene

The stability of carotene, says E. M. Bickoff (*J. Am. Oil Chem. Soc.* 28:65, 1951) has been the subject of numerous investigations, most of which have been concerned with the rate of loss of carotene naturally present or added to food or feed ingredients. In his own investigations, which were made in order to obtain a better understanding of the relationship of antioxidant activity to structure, relative values for the carotene-stabilizing effects in mineral oil solutions of a number of phenolic-type antioxidants were determined. As a result, certain relationships between molecular structure and antioxidant activity were observed. Alkylation of the phenolic compounds in general enhanced activity. Hydroquinone was shown to be an exception in the system studied.

Several antioxidants which have been accepted for use in lard have been found to be effective antioxidants for carotene in mineral oil solution. These include nordihydroguaiaretic acid, 2-t-butyl-4-methoxyphenol, alpha tocopherol, and esters of gallic acid. In addition, certain bisphenols used as anthelmintics were effective antioxidants for carotene.



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You can improve the appearance of your package with Armstrong's Artmold® Plastic Caps. They are available in standard sizes ranging from 8mm to 100mm. These caps meet requirements of all G.C. M.I. standard finishes for bottles, vials, and jars. They are chip and crack resistant. Their luster is both brilliant and durable. They come in a wide range of sparkling colors.

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CAPS

INDUSTRY'S BOOKS

Perfume Album, by Jill Jessee, 188 pp., 7½" x 8½", binding, Perfume Productions Press, New York, $3.50.

In an armchair travelogue that takes you pleasantly from world spot to world spot in the search for perfume raw materials, Jill Jessee's "Perfume Album" disarms you with its easy, charming style. Read for entertainment, it rewards with a surprising store of information on where perfume raw materials come from, how they're grown and harvested and processed, and what each contributes to the art of perfumery. Literary allusions, fragments of myths, history and geography give narrative interest and a romantic atmosphere that make this book more than a mere treatise on the subject. Back-of-the-book material includes a valuable chart of raw materials and a glossary of terms following a concluding chapter that clarifies the complex organization of the perfume industry. For the sum of these virtues, "Perfume Album" will be especially welcomed by the non-technical aspirant to an understanding of perfumes on which so little has been available in the past. It is basic training for the salesgirl and her buyer; it is a reference work for the advertising and publicity writer as well as for the beauty editor; it is a happy library addition for the woman who "loves" perfumes and has a natural, unsatisfied curiosity about them. Even the laboratory technician will find this attractive volume a refreshing change of reading pace. "Perfume Album" is everybody's book on a fascinating subject. As neatly arranged as a perfumer's shelf of fragrance ingredients, the book is divided into ten sections, nine of which are each devoted to a category of raw materials such as flowers, grasses, spices and herbs, citrus products, woods, etc. Each section is prefaced by a sub-title page of pastel terra cotta paper with a delightful drawing by Henry Stahlhut interpreting both the letter and the spirit of the author. The book is spiral-bound for easy reference with a heavy lacquered gray cover printed in deep terra cotta. "Perfume Album" looks fresh and inviting, and lives up to its promise. Perfume Album, which was first published serially in *Beauty Fashion*, is the romanticized story of raw materials and perfume processes written in an informal, non-technical, travelogue style, which should appeal to everyone in the industry.

Vitamin E: Annotated Bibliography 1940 to 1950. Philip L. Harris and Wilma Kujawski. 184 pp. The National Vitamin Foundation, Inc., New York, $3.

During the ten-year period from 1940 to 1950, there were more than 1500 scientific publications and patents concerned with vitamin E. The bibliography presents brief abstracts of the literature under the following headings: occurrence and distribution in nature; determination; chemistry; physiology and pathology; pharmacology; nutrition and metabolism; medical and therapeutic use; veterinary use. There is an author index.

Scoville's The Art of Compounding, Eighth Edition, by Glen L. Jenkins, Dean and Professor of Pharmaceutical Chemistry, Purdue University, School of Pharmacy, Lafayette, Indiana, Don E. Francke, Chief Pharmacist, University Hospital, University of Michigan, Ann Arbor, Michigan, Edward A. Brecht, Dean and Professor of Pharmacy, University of North Carolina, School of Pharmacy, Chapel Hill, North Carolina, and Glen J. Sperandio, Assistant Professor of Pharmacy, Purdue University, School of Pharmacy, Lafayette, Indiana, 515 pp., 77 Illus., 19 Tables, The Blakiston Company, Phila., $7.50.

This work, a practical, "how-to-do-it" guide to compounding and dispensing for practicing pharmacists and pharmacy students, explains how to prepare all types of powders, capsules, pills, tablets, ointments and solutions. Every class of preparation encountered in the practice of pharmacy is discussed in detail. Typical prescription and compounding exercises are presented in a simple and concise manner from the relatively simple to the most difficult preparations. It contains both basic principles and actual compounding techniques, and much new material. The chapters on incompatibilities have been revised and enlarged, and new chapters on solutions for special purposes and allergenic solutions have been added. It includes practical, usable tables, formulae, illustrations, and a list of trade name preparations. Like all former editions, this new Eighth Edition should be in the library of every firm in the industry.

Schimmel Briefs (Vol. 1 Nos. 1-189) from April, 1935 to December, 1950, Schimmel & Co., Inc., New York, $7.50.

Those who are not familiar with the Briefs may be interested to learn that these technical papers have gained the reputation of being among the finest in their field. Published monthly since 1935, the Briefs have been devoted to the reporting of important developments in technology relating to the manufacture of perfumes, soaps and cosmetics. They are now bound in one volume of nearly 200 briefs containing over 400 individual monographs. Taken together, the Briefs form an unusually comprehensive handbook and reference work containing authoritative answers to hundreds of questions that may confront the cosmetic manufacturer. An important feature of the book is the detailed index which makes instantly available all of the information relating to any given subject.

A Glossary of Botanic Terms, (with their derivation and accent) by Benjamin Daydon Jackson, Knight of the Polar Star, Hon. Ph.D., (Upsal.), Emeritus Secretary of the Linnean Society of London, 481 pp., Fourth Ed., Hafner Publishing Co., New York, $4.

This is the fourth edition of a standard work which defines the many constantly changing terms used in botany and several overlapping sciences. The total numbers included in this Glossary now amount to nearly 25,000. The reception accorded to this book through the years since first publication in 1900 shows that the author and his successive teams of assistants have achieved some measure of success, and produced a manual of lasting value to botanists.

PERFUMER'S SHELF

An Octanol in American Spearmint Oil

C. E. Bryan, N. C. Burnett and R. B. Wearna (*J. Am. Chem. Soc.* 73:1848, 1951) note that *d*-3-octanol has been found in Japanese peppermint oil in Brazilian peppermint oil and, both free and as the acetate, in European pennyroyal oil. However, in the distillation of American spearmint oil (*Menthis spicati*), they observed that certain portions of the monoterpene fractions possessed a heavy, fruity odor which could not be accounted for by the reported constituents of these fractions, *i.e.*, *l*-α-pinene, *l*-α-phellandrene, and, mainly, *l*-limonene. The ceric nitrate alcohol test on these fractions was positive. Although the new compound could not be obtained in any degree of purity by fractional distillation, its allophanic ester (m.p. 182°) was readily precipitated when cyanuric acid gas was passed into the terpene fraction. Analytical data on the allophanate indicated that the new compound was an octanol. Saponification of the allophanate gave a dextrorotatory alcohol (b.p. 88-92° (33mm.) which was negative in the unsaturation test with bromine in carbon tetrachloride and in the iodoform test. Analysis of the alcohol and its α-naphthylurethan (m.p. 79-80°) supported the view that it was an octanol. On the basis of the weight of the allophanate obtained, *d*-3-octanol makes up about 1.1 per cent of American oil of spearmint.

Guaiol in Eucalyptus Oil

C. M. Harris and H. H. G. McKern (*Museum Technol. and Applied Sci.* 2:15, 1950) state that the "intermediate aldehyde" group of Eucalyptus citriodora; namely, those trees yielding oils containing 20 to 50 per cent of citronellal, are of special interest because many of them yield guaiol on cooling. A typical oil yielded 5.6 per cent of guaiol on cooling to —20° C.; the melting point of the crude crystals being 89° to 90°C. Recrystallization from ehtyl alcohol raised the melting point to 93° C. This value was not depressed by admixture with an authentic specimen of guaiol. The compound gave characteristic color tests with halogen acids and bromine.

Solid Perfumes

In discussing the production of solid perfumes, S. C. Jannaway (*Alchimist* 5:67 and 92, 1951) stresses that the perfume compound must be specially blended for incorporation in this class of product. Most ordinary perfumes will be too flat and uninteresting without suitable revision. He presents several formulae which provide bases for carrying out individual experimentation. Thus, a solid perfume can be made from:

Beeswax	10 parts
Lanolin, Anhydrous	8 "
Ozokerite, White	8 "
Microcrystalline wax	20 "
Mineral oil	12 "
Isopropyl myristate	12 "
Perfume oil	20 "

Melt the waxes and lanolin. Add the perfume oil to the isopropyl myristate. Stir the mineral oil into the melted waxes and, at as low a temperature as is convenient, stir in the perfume-myristate mixture. Pour into suitable molds or directly into small plastic containers.

In the following formula, in which the same procedure is employed as above, the wax blend may be adjusted to meet individual needs with respect to gloss, melting point and the like; and the ratio of solid to liquid components may also be adjusted:

Parraffin wax	60 parts
Carnauba wax	3 "
Ozokerite, white	7 "
Mineral oil	15 "
Perfume oil	15 "

Another type of solid perfume is illustrated by the following formula:

Beeswax, white	20 parts
Cetyl-stearyl alcohol	10 "
Paraffin wax	9 "
Wool wax alcohols	1 part
Isopropyl myristate	7 parts
Glycerine	8 "
Perfume	15 "
Borax	1 part
Water	29 parts

Melt the waxes and fatty alcohols on a water bath and add the myristate. Separately dissolve the borax in the water, and mix the perfume with the glycerine. Add the borax solution slowly in a thin stream, with constant stirring, to the melted waxes. Decrease stirring speed and allow the temperature to fall and at about 45 to 50° C. add the perfume-glycerine mixture. Before pouring into molds or jars at about 45° C., the complete batch may be passed through a colloid mill or homogenizer at a temperature not exceeding 55 to 60° C.

Jannaway also made tests to determine the possibilities of the water-soluble polyethylene glycols and their derivatives. He came to the conclusion that these materials were not suitable as vehicles for solid perfumes because of their stickiness and lack of "flow" when applied to the skin.

In considering solid perfumes of the "frozen" cologne type, he states that they are usually transparent alcoholic soaps, made by dissolving 5 to 10 per cent of sodium stearate and other hard soap in warm alcohol. A small amount of shellac is sometimes included to slow down the evaporation rate of the alcohol. Glycerine is also useful in this respect and, in addition, it enhances the transluscent appearance of the finished stick. Basic formulae for making solid colognes include the following:

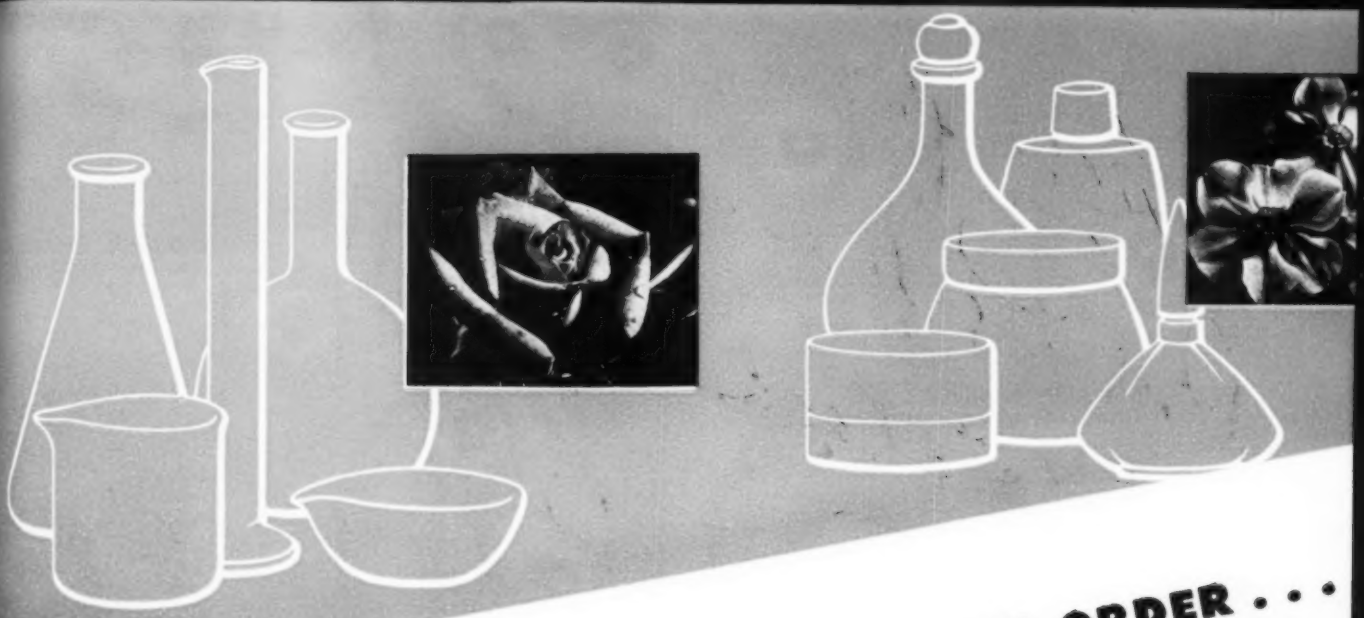
Sodium stearate or hard soap	7 parts
Glycerine	3 "
Cologne perfume oil	3 "
Ethyl alcohol	87 "

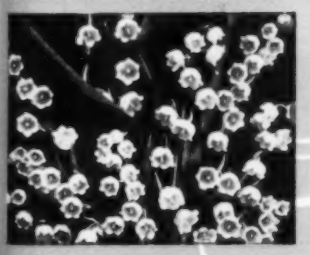
The molded sticks should be allowed to cool slowly in order to prevent the formation of air pockets; the cooled sticks being wrapped in foil.

Another formula for a solid cologne calls for the use of:

Stearic acid, triple-pressed	90 Gm.
Caustic soda (10% solution approximately)	110 cc.
Water	80 cc.
Glycerine (or a glycol)	120 cc.
Menthol, synthetic	12 Gm.
Eau-de-Cologne oil	35 cc.
Phenolphthalein and salicylic acid	sufficient
Alcohol (95°)	1 liter

Procedure: The alcohol is carefully





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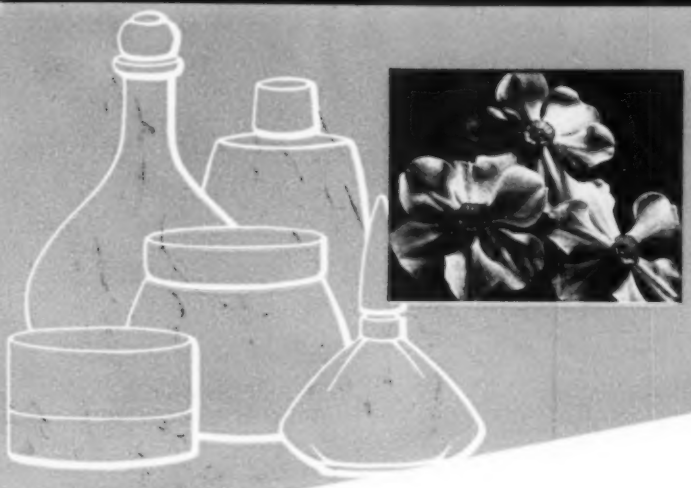

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WISTARIA #20503

For Use In: Creams.

Odor Type: Strong, intensely sweet floral odor, strikingly characteristic of the flowering plant.

Remarks: An excellent odor for lanolin-base creams. Can be used very sparingly.

BASICOL YLANG EXTRA

For Use In: Any composition having natural oil of ylang ylang as an ingredient.

Odor Type: Outstanding duplication of ylang, even to its characteristic top note.

Remarks: Particularly useful now since it is composed of readily obtainable materials independent of the imported oil. Very lasting. Undergoes little change during entire evaporation range. Lacks harsh chemical character of inferior imitations. A proven product; highly recommend it.

GERANIUM SYNTHETIC #17835

For Use In: Perfume formulations for cosmetics.

Odor Type: Duplicates closely the basic characteristics of natural geranium.

Remarks: This fully proven, low cost replacement offers incredible value as a full or partial substitute for the much needed natural oil.

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heated to 70° C. and the finely cut stearic acid and the glycerine added. After the stearic acid has completely dissolved, add a few drops of phenolphthalein in 1 per cent alcoholic solution. While stirring continuously, pour in the caustic soda, stopping only when the reddish-violet color appears. There may be either a little more or less caustic, as indicated in the formula; in any case, it is necessary to continue adding until the color becomes apparent and has spread throughout the entire batch. Now, while stirring continuously, salicylic acid is sprinkled into the batch in small quantities until the batch again becomes colorless. Immediately after incorporating the menthol and the eau-de-Cologne oil, pour the batch into molds of pencil shape. The sticks, after complete cooling, can be cut into suitable sizes.

Jannaway also notes that acetanilid may be used to impart solidity, as in the following example:

Acetanilid	**58 parts**
Magnesium carbonate	**8 "**
Ozokerite, white	**1 part**
Beeswax, white	**2 parts**
Crystalline synthetics	**24 "**
Perfume oil	**7 "**

Melt the acetanilid and waxes together and add the crystalline synthetics (e.g. nitro-musks and heliotropin). When clear, switch off the heat source and add the magnesium carbonate into which the perfume oil has been thoroughly mixed. Pour into molds and allow to solidify; removing the sticks while still warm.

Animal Odors and Perfumes

In a paper on animal odors and perfumes prepared for delivery at the 119th meeting of the American Chemical Society, E. Lederer stated that the classical work of L. Ruzicka on muscone and civettone has shown that animals can synthesize perfumes from normal fatty acids through formation of large 15- or 17-membered cycles. However, new types of animal perfumes have been disclosed in studies of the constituents of the scent glands of the beaver (castoreum) and of ambergris, two animal drugs used in perfumery.

Castoreum contains a complex mixture of about one hundred different substances, half of which have been identified. Most of these are constituents of the food of the beaver and are deposited in the scent glands unchanged or only slightly altered. The ordinary fate of these substances in other vertebrates would be excretion in the urine. The formation of castoreum is thus due to a metabolic anomaly. The bio-chemcal analogy between constituents of urine and of castoreum has facilitated identification of new constituents in both materials.

Ambergris is an intestinal concretion of the sperm whale; its most important constituent is ambrein, a tricyclic triterpene alcohol, the constitution of which Lederer elucidated simultaneously with L. Ruzicka and his colleagues. Oxidation of ambrein gives two series of strongly smelling substances; γ-dihydroionone and its derivatives and bicyclic substances derived from I, I, 5, 10-tetramethyldecalin. Both of these series are now synthetically available: the first from α-ionone, the second from sclareol or the ionones.

Essential Oil of Artemesia

In his comprehensive discussion of Spanish concretes and essential oils in *Industrie de la Perfumerie* for March-April, 1950, M. Fesneau gives considerable information on the essential oil of *Artemesia*) the variety *Herba alba* being the one chosen for detailed study. He notes that in spite of the large number of varieties of *Artemesia*, and the existence of many known essential oils, there is a lack of published data. Fesneau, therefore, not only gives the constants of the essence, but also indicates the main constituents that he has isolated. The physical properties are as follows:

Specific gravity at 15° C.	**0.946**
Specific rotation at 20°	**+12°**
Index of refraction at 20°	**1.4720**
Solubility in alcohol 90%	**1 in 0.8**
Solubility in alcohol 80%	**1 in 1.5**
Index of acidity	**5**
Acetyl index (Value)	**283**
Ether Value	**188.3**
Ketones (method Sabetay)	**11%**
Phenols by 5% soda	**10%**
Color	**Green**
Odor	**Camphorous, lightly amyl**

The main constituents are as follows: furfural, alcohols, ethers, ketones and phenols. The chief alcohol is amyl alcohol, the chief ester is amyl acetate; cineol is also present. Amyl acetate has been estimated at 44 per cent, cineol at about 20-21 per cent, and phenols at 8.8 per cent. In order to complete the study, Fesneau prepared the concrete by extraction with benzol. The product obtained was olive color and semi-solid, the odor was typical of the plant; the yield was 4 to 5 per cent.

Essential Oil of Xanthoxylum Rhesta

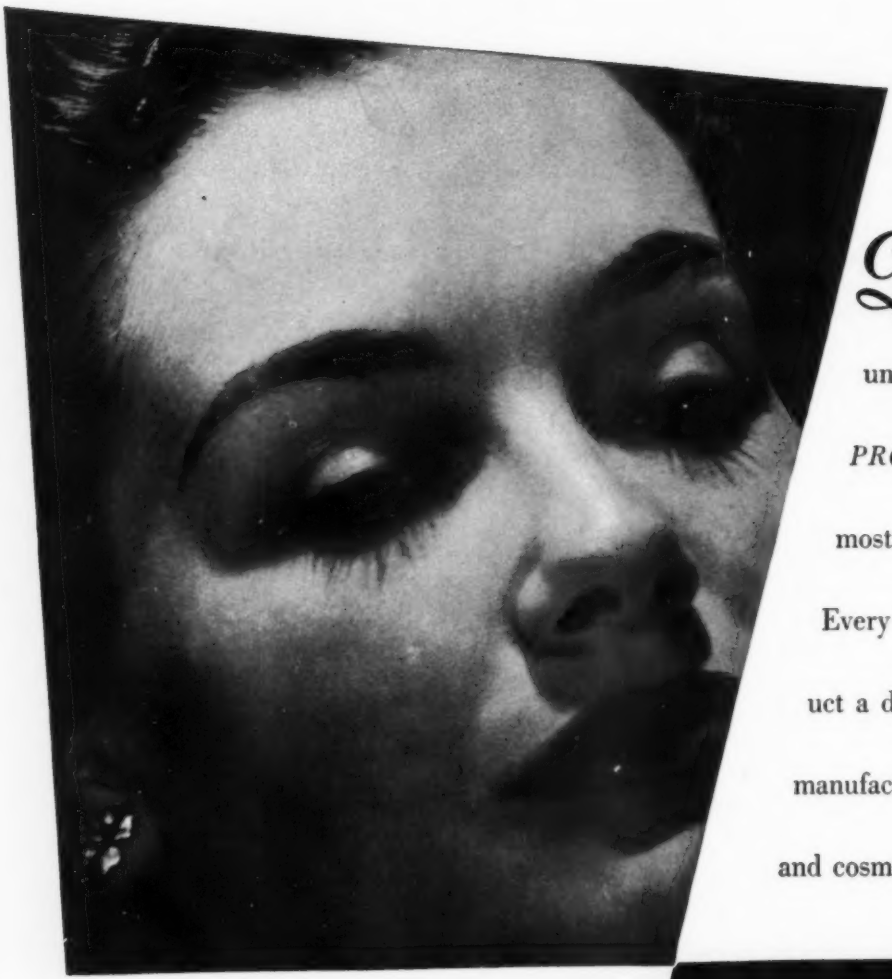
With the assistance P. Ardizio, Y.-R. Naves (*Perfumer & Essent. Oil Rec.* 41: 441,1950) has examined two batches of the essential oil of *Xanthorylum rhesta*, or mullilam oil, produced in Calcutta, from ripe fruit. They were mobile liquids with the odor of sweet orange and tangerine, due chiefly to the presence of small quantities of fatty aldehydes. The two batches were sharply differentiated by their alcohol content. This was estimated by cold formulation, the usual acetylation giving lower figures, because of the nature of the alcohol fraction, discovered as a result of these studies. The characteristics of the two batches of the oil were as follows:

	A	B
Specific gravity	**0.8697**	**0.8512**
Index of refraction	**1.4718**	**1.4692**
Specific rotation	**—34.65°**	**—37.88°**
Acid number	**4.2**	**0.2**
Ester number	**11.2**	**6.9**
Alcohol (as $C_{10}H_{18}O$)	**50.5%**	**14.0%**

The following constituents were identified; the first three representing more than 80 per cent of the oils: l-sabinene, *alpha*-terpinene, 4-terpinene-1-ol, *beta*-phellandrene, 1:4-cineol; 1-4-*iso*propyl-1-cyclohexene (1-cryptone), cuminic aldehyde, octanal, decanal, and phloracetophenone dimethyl ether. In considering the properties and components of *Xanthoxylum rhesta*, Naves feels that commercial interest in the oil would appear to depend on its content in fatty aldehydes, which is poor. The deterpenated oil might be used to some extent for perfumes and flavorings. However, production of the oil for this purpose would be costly.

Essence of Bystropogon Mollis

In the second of their reports on volatile essential oils from San Luis and Corboba, G. A. Fester, E. A. Martinuzzi and N. Dellamea (*Rev. facultad quim. ind. y. Agr.* 18:145, 1949 through *Chem. Abstr.* 45:2151, 1951), state that the essence of *Bystropogon molles* contained *d*-isomenthone, as shown by a method involving rigorous precautions against isomerization. The presence of *l*-menthone and pulegone was confirmed, but that of menthone was not. Among the semicarbazones prepared, there appeared small amounts of one melting at 170° C., which may have been 1-methyl-3-cyclohexamone. In addition, *beta*-pinene and *l*-limonene were found.



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ADVANCING THERAPY

PABA in Dermatitis Herpetiformis

The administration of large doses of para-aminobenzoic acid (PABA) has been shown to benefit a variety of clinical disorders. These include the rickettsioses, lymphoblastoma cutis, lupus erythematosus, dermatomyositis and scleroderma. The report of C. J. D. Zarafonetis, E. B. Johnwick, L. W. Kirkman and A. C. Curtis (*Arch. Dermat. & Syph.* 63:115, 1951) indicates that the B vitamin is a useful therapeutic agent in still another condition, namely, dermatitis herpetiformis. In their study, 16 patients with dermatitis herpetiformis were treated with large doses of potassium and/or sodium para-aminobenzoate. All experienced partial to complete suppression of the disorder while taking the compound. Relapse usually occurred about 10 days after cessation of therapy. Remissions were maintained, however, through continued administration of the drug, for as long as 30 months.

Streptokinase and Streptodornase

Writing in the *Journal of the American Medical Association* (145:620, 1951), J. M. Miller, M. Ginsberg, R. L. Lipin and P. H. Long state that in studies which have been going on for about 20 years, it has been demonstrated that the catalytic agent streptokinase and the enzyme desoxyribonuclease, or streptodornase, which are produced in abundance during the active growth of certain strains of *beta* hemolytic streptococci (group A), may be successfully employed as highly useful topical adjuncts to surgical or other treatment of certain acute and chronic infections and in other instances of disease in which clotting of blood or its elements creates a therapeutic problem.

In the clinical studies of Miller and his associates, it was shown that streptokinase and streptodornase offer the surgeon a new biologic approach to the therapy of infections and clotted hemothorax. Through their catalytic and enzymatic properties, it is now possible to bring about the hydrolysis of fibrin and of desoxyribonucleo-protein when these compounds can be brought into direct contact with fibrin or pus for a sufficiently long period. As streptokinase and streptodornase have no effect on living tissue, the hydrolysis of fibrin and desoxyribonucleoprotein not only eliminates the corruption which favors infection but also facilitates the formation of healthy granulation tissue. Thus, the secondary closure of infected wounds and of cold abscesses can be carried out at an earlier period, infected denuded areas can be cleaned up preparatory to skin grafting and accessible clots and fibrin coats can be liquefied promptly. The hydrolysis of fibrin in clotted hemothorax by the catalytic action of streptokinase provides an effective means of enzymatic decortication.

Amino Acid Ointment for Pruritus Ani

The value of a mixture of amino acids for providing relief of pruritus ani is shown in the study of L. G. Bodkin and E. A. Ferguson, Jr. (*Am. J. Digest. Dis.* 18:59, 1951), this mixture of amino acids is a specially treated combination from which excess methionine has been removed. This mixture incorporated in a base of a saturated fatty acid di-ester of polyethylene glycol makes a salve which, when applied to areas of pruritus, has shown an effect far better than any agent previously used in the treatment of this condition. Of 100 cases treated, 88 showed complete relief of symptoms.

Testosterone for Breast Cancer

The usefulness of testosterone in cases of advanced carcinoma of the breast is indicated in the report on 18 cases by W. G. King (*Arch. Surg.* 61:630, 1950). He states that the hormone is of maximum value when (a) all the practicable surgical treatment has been completed, (b) benefits possible from roentgen therapy have been exhausted, (c) a postmenopausal status has been brought about either by irradiation or by surgical castration and (d) there has been pain of cancer origin requiring narcotics for relief. The amount, method and frequency of administration of testosterone is largely unsettled. With the type of testosterone therapy reported by King, seven of 13 patients with far advanced, painful and/or disabling cancer of the breast, who lived over 30 days after the start of therapy, were temporarily rescued from an invalid state or a terminal narcotic status and reinstated in family, home and society as useful citizens for an average of over a year. An additional four patients received enough benefit to have justified the use of the androgen.

Studies on Veratrum Derivatives

Among the several papers on the increasingly important veratrum alkaloids presented at the 119th meeting of the American Chemical Society was one by G. L. Maison on the blood pressure—lowering action of these compounds. In this report, he pointed out that, medically, the most attractive property of veratrum derivatives is their capacity to reduce blood pressure without interfering with reflex responses desirable for normal living. An empirical method was derived for estimating the quantity of each derivative in micrograms per kilogram required to lower by 30 per cent the mean blood pressure of anesthetized normal dogs. Ester alkaloids proved to be the most powerful: e.g., germitrine 1, germerine 1.9, protoveratrine 2.3, germidine 4.2, veratridine 21, cevadine 50.0. Mixtures of amorphous derivatives (presumably esters) have shown dosages between 2.5 and 12. A glycoside was relatively impotent: pseudojervine 3800. Alkamines were also capable of producing a reduction: veratramine 330 to 400, germine 2750, jervine 3600, ruoijervine 2500.

The outstanding undesirable concomitant of veratrum therapy has been the occasional occurrence of nausea and vomiting. Accordingly, the dose required to produce emesis in 50 per cent of dogs was measured for many of the aforementioned derivatives. With the exception of veratramine, which is convulsant, the emetic dose proved to be 20 times the stated hypotensive dose.

Efforts to assess the power of pharmaceutical mixtures from veratrum have often utilized lethal dose for small creatures as a method. Correlation between lethal (mice) and blood pressure lowering properties have not proved good in their laboratory. Similarly, attempts to correlate power to slow the heart, power to depress respiration of anesthetized animals, or power to create spasm of intestinal muscle with blood pressure

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lowering property have not been rewarding. Efforts to elucidate the site of action of the agents in dogs suggested that the esters act in the brain to lower blood pressure and act peripherally to slow the heart. When the agents reached the brain without passing through the body, no reduction of heart rate occurred even when all nerves were intact. However, the blood pressure was lowered even in the absence of the vagus. Conversely, when the drugs were kept out of the brain but circulated through the body, reduction of blood pressure would occur only with bradycardia. When the cardiac slowing was prevented by blocking the vagi peripherally with atropine, the veratrum esters did not cause reduction of blood pressure.

Antibiotics in Brucellosis

Until the advent of the antibiotics, say, J. H. Killough, G. B. Magill and R. C. Smith (*J. A. M. A.* 145:553, 1951), the therapy of brucellosis was viewed with defeatism. That there is cause for optimism today is well evident in their report on 39 patients acutely ill with brucellosis. These were treated with various antibiotics:—16 with terramycin, 12 with chloramphenicol and 11 with aureomycin. Clinical response was excellent with each antibiotic, and from this viewpoint there was no observed advantage of any one drug. As regards patient acceptability, terramycin and chloramphenicol were more satisfactory. There were no significant differences in the clinical or bacterial relapse rates with the three compounds. However, the high combined clinical-bacterial relapse rate of 69 per cent emphasizes that a satisfactory curative agent or curative routine of administration with the available agents has not been found. Hence the problem of how to reduce the number of relapses assumes primary importance. Two approaches using the compounds now available are suggested. One is that of seeking effective combinations of chemotherapeutic agents with synergistic actions, such as with streptomycin and a sulfonamide and with dihydrostreptomycin and aureomycin. The other is that of using various dosage levels and prolonging the period of administration. Studies utilizing the latter approach have been initiated.

New Fat-Controlling Hormone

Discovery of a new hormone, which has not yet been identified, has been announced by L. Levin, according to a note in *Science News Letter* (59:284, 1951). This new hormone, which triggers the body's mechanism for mobilizing fat is produced by the pituitary gland, which also produces a growth hormone and ACTH. However, the new hormone is not ACTH, and apparently acts directly instead of through the adrenal glands, which is what ACTH does. But there is a tie-up with the adrenal gland cortex, because the trigger does not work unless there is sufficient cortisone circulating in the blood.

Antibiotic Selection Aid

A new diagnostic aid which enables the physician to quickly and accurately determine the most effective antibiotic to use against a specific infection in an individual patient, has been announced by C.S.C. Pharmaceuticals, a division of Commercial Solvents Corporation. The new product, called "Dia-Discs," is designed to avoid the loss of precious time involved in seeking the antibiotic of choice by the trial and error method. Today, at least six antibiotics, each possessing certain distinct advantages, are at the command of the physician. Dia-Discs contain six different diagnostic test tablets representing the six antibiotics in common use today: penicillin, bacitracin, streptomycin, chloromycetin ("Chloramphenicol"), aureomycin, and terramycin. Two potencies of each antibiotic are supplied to assure accuracy over the entire range of sensitivity. Up to six tablets may be placed on a streaked Petri plate which is then incubated overnight. The diameter of the inhibition zone surrounding each tablet gives accurate indication of qualitative and quantitative effectiveness. A sensitivity chart enables quick interpretation of the findings observed.

Vitamin A for Premenstrual Tension

In a new approach to the treatment of premenstrual tension, J. Argonz and C. Abinzano (*J. Clin. Endocrinol.* 10: 1579, 1950) administered vitamin A to 30 patients showing symptons of this condition. Daily doses of 200,000 I.U. of vitamin A were given in two divided doses; after lunch and after dinner. Treatment was begun on the fifteenth day of the cycle and was continued through the first day of menstruation. It was resumed 15 days later, for a total period of from two to six months. Significant improvement was obtained in the majority of patients, as shown by the disappearance of mastodynia, decrease or disappearance of mammary nodules, decrease of abdominal pain, disappearance of edema and great improvement in nervous disorders. This improvement continued after cessation of the therapy, and the disturbing symptoms did not reappear during the year following the beginning of treatment. The symptoms remained unchanged when placebos were given.

Allergy to Drugs

A comprehensive discussion on allergy to drugs has been presented by W. B. Sherman in the *Cincinnati Journal of Medicine* (31:353, 1950). He points out that almost all of the common allergic symptoms, such as anaphylactic shock, asthma, rhinitis, urticaria and contact dermatitis, may occur as manifestations of drug allergy. In addition, there are many symptoms that are frequent manifestations of drug sensitization but that are rare or unknown in allergy to foods or inhalants. Among these may be mentioned fever, morbilliform and scarlatiniform rashes, erythema nodosum, arthralgia, hepatitis, agranulocytosis and thrombocytopenia. Drug sensitization is of long duration or essentially permanent. In many cases of acetylsalicylic acid and arsphenamine allergy the sensitization has lasted for 10 to 15 years or more. In the case of sulfonamides, sensitivity lasting two or three years is not unusual. Mild reactions to penicillin are frequently ignored and subside despite continued therapy. Sensitization to penicillin is transitory in many cases. In the management of drug reactions, discontinuance of the causative agent is sufficient in most cases. The severer cases require suitable symptomatic treatment, such as epinephrine and aminophylline for asthma and antihistaminics for urticaria and angioedema. Pituitary adrenocorticotropic hormone and cortisone have been tried in a few cases and were found effective. Measures to hasten excretion of the allergenic drug, such as administration of BAL, in reactions to arsenic and gold compounds, are valuable. Further use of the same drug after the patient has recovered from even a minor drug reaction exposes him to danger of more serious manifestations of sensitization. The substitution of a closely related drug may not avoid a reaction. The only drug that can be used again after a previous reaction, with a reasonable expectation that the sensitization will have disappeared, is penicillin. In general, the best procedure is substitution of a clinically unrelated drug of similar action. With recent advances in pharmacology and antibiotic therapy, this is rarely a difficult problem.

(The Plant)

(*Continued from page 736*)

goods in process and for the maximum efficient use of modern materials handling equipment. These warehouse areas are of monitor design with alternate 60 ft. high and 40 ft. low bays with columns 40 ft. apart, to permit a free movement of fork lift trucks under conditions which are ideal for high pallet storage of materials and finished merchandise.

The present layout provides for 50 per cent expansion of the manufacturing building, the antibiotics and the adrenal cortex units, and there is space in the existing boiler house to double the present installation of three 750 HP three-drum boilers.

Buff glazed tile has been used throughout the corridors and most other permanent partitions which have been held to a minimum in the interest of long-range flexibility. Because of the necessity for the extremely close atmospheric and operating controls in so many highly specialized departments, however, extensive use has been made of movable steel partitions, over 20,000 lineal feet of which were required. Manufacturing area floors have a ground Gibraltar terrazzo-type monolithic finish ideal for a pharmaceutical plant.

Some of the most interesting and unusual aspects of the entire plant are in the provisions which have been made for the convenience and recreation of employees. Because of its outlying location, special attention had to be given to all aspects of employee transportation. These have been met by providing more than eight acres of paved parking space adjacent to the various employee entrances for those driving to work and by the company's establishment of a scheduled bus service betwen the city and the plant.

Employees arriving by bus alight in a covered concourse on the lower level, at the head of a 20 ft. corridor extending the full length of the plant directly beneath the center of the manufacturing area. Personnel offices, all of the employee locker and toilet rooms and three large lunchrooms have been located along the 1125 ft. length of this corridor, from which stairs at various points lead directly to an upper corridor that bisects the production floor.

All food served in the corridor lunchrooms is prepared in a large well-equipped kitchen adjoining the plant's 600-seat cafeteria on the main floor. In the summer time, picnic tables on terraces nearby supplement the usual cafeteria seating. A large well-appointed employees' lounge adjoins the cafeteria and extensive indoor and outdoor recreational facilities have been provided. These include deck and table tennis, shuffleboard, a golf driving range, and a number of baseball diamonds.

The plant is located on a 1,500-acre site just outside Kalamazoo. Consolidated under one roof in the new plant are operations which formerly occupied 30 buildings and 19 acres of floor space in downtown Kalamazoo. Remaining at Upjohn's downtown site are the administrative offices and the research department, which employs 375 people in ten departments ranging from physics to endocrinology. The company's 3,500 employees make and distribute 700 products.

(The Products)

(*Continued from page 737*)

volume of fluid, and is itself slowly absorbed by the body tissues. Placed in a wound, Gelfoam halts bleeding by providing a framework for the formation of a strong clot; since it will be completely absorbed, the gelatin sponge need not be removed. Gelfoam has been used with excellent results in neurosurgery, in liver, kidney, gall bladder and glandular operations, and even in gunshot and stab wounds in the heart; it is also valuable in tooth extractions and in controlling nosebleeds, especially in "bleeders," individuals with a blood coagulation defect. Gelfoam powder, together with the blood clotting agent thrombin, has given encouraging results in halting severe hemorrhages of the esophagus, stomach and duodenum.

One of the most interesting applications of Gelfoam is the Gladstone sponge biopsy technique for detecting cancer, devised by Professor Sidney A. Gladstone of New York Polyclinic Medical School and Hospital. In this, a small piece of Gelfoam is rubbed over a suspicious lesion with the aid of a sponge forceps. Since it is sticky when wet, the Gelfoam picks up cells from the surface of the lesion. The piece of Gelfoam is then fixed, sliced, stained and examined microscopically for tumor cells. Sponge biopsy can be used for detecting cancer of the cervix and other accessible sites. It is simpler and easier on the patient than surgical biopsy, and provides fresher and therefore more easily identified cells than the cytological smear technique.

Ever since it introduced the first standardized high potency vitamin preparations—the Super A and D line of products—Upjohn has been a leading producer of vitamin preparations. The company now markets more than 50 different vitamin preparations, ranging from the well-known dietary supplement, Unicap Vitamins, and the standard Zymadrops preparation for infants to high-potency therapeutic capsules such as Zymacaps and the Solu-B line of sterile vitamins for injection in severe nutritional disorders. Newest members of the Upjohn vitamin family are the blood forming preparations, folic acid, and Berubigen, the Upjohn brand of vitamin B_{12}. Upjohn also produces iron and liver extracts for treatment of anemias, a sterile dextrose solutions for intravenous feeding, and low-salt protein supplements used in a variety of debilitating disorders.

Upjohn is a leading supplier of numerous other drugs ranging from old standbys like Kaopectate for diarrhea to the synthetic narcotic methadone. Some were developed in the Upjohn laboratories; many have been significantly improved by Upjohn research. Among those that may be mentioned are Depo-Heparin, a long-acting preparation of the pure naturally occurring

(*Continued on page 796*)

Memo-

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***ALCOLAN**—self emulsifying absorption base—produced from **selected** Lanolin fractions—forms lustrous white w/o emulsions—for cosmetic creams and medicinal ointments.

ROWAG AAA LANOLIN—vacuum deodorized, extremely light color—glossy texture—**finest cosmetic quality** available—far superior to standard grades as skin penetrant and emollient.

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Photo of high vacuum distillation equipment at Mamaroneck plant.

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PATENT THOUGHTS AND TRENDS

by Thomas Cifelli, Jr. *

Patent Attorney

● *There were three patents issued recently of possible general interest to the readers of this section. They dealt with liquid lipstaining compositions, intermediates for materials having sympatholytic and adrenolytic properties, a recently opened field for chemical synthesis, and a process for making vanillin from lignin-containing materials.*

Liquid Lip-Staining Composition

A composition said to be capable of forming a moisture-proof, soft, healing, thin tint coating on the lips forms the subject of U.S. patent 2,548,970 issued to L. Grigsby Grate of Miami, Florida. The advantages of the composition are that they do not smear but rub off only under relatively high pressure, they remain on the lips for relatively long periods of time, they do not flake or peel, they impart a natural velvety appearance to the lips, they remain in perfect solution without the formation of a sediment upon standing, they may be applied to the lips so that two shades can be obtained from a single colored composition, and they are said not to run but to permit an even, sharp outline.

The compositions contain cetyl alcohol, gum benzoin, lecithin, dye and perfume dissolved in a major proportion of a volatile solvent, preferably a lower alkyl alcohol, such as ethyl alcohol or isopropyl alcohol.

Illustrative formulae follow:

	Per Cent
Isopropyl alcohol	60 to 90
Gum benzoin	1 to 12
Cetyl alcohol	1 to 12
Sulfonated castor oil	1 to 12
Lecithin	3 to 20
Dye	0.05 to 3
Perfume	0.03 to 2

Example 2.

	Per Cent
Isopropyl alcohol	60 to 90
Gum benzoin	3 to 25
Cetyl alcohol	1 to 12
Lecithin	3 to 20
Fatty alcohol sulfate	3 to 20
Dye	0.05 to 3
Perfume	0.03 to 2

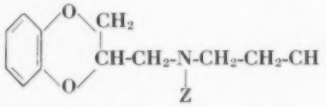
Example 3.

	Per Cent
Isopropyl alcohol	60 to 90
Lecithin	1 to 25
Saturated tincture of gum benzoin and rosin	5 to 25
Cetyl alcohol	1 to 12
Dye	0.05 to 3
Perfume	0.03 to 2

The Grate patent is another indication that recent research efforts have been directed to providing compositions which actually stain the lips and do not merely impart coloring thereto by reason of a coating of coloring material deposited on the lips. In this connection, the ground was broken by Fiore in 1941 when he obtained U.S. 2,266,540, assigned to the Givaudan organization. Fiore suggested the use of tetrahydrofurfuryl alcohol as solvent for the bromo acids, as the halogenated fluorescin dyes are known. The use of esters such as the acetate of tetrahydrofurfuryl alcohol is suggested by Gottfried in U.S. 2,506,921.

Sympatholytic Intermediates

Another new research area, this one in the medicinal field, is unfolding in the patent literature. Dr. Kerwin of Smith, Kline & French Laboratories, Philadelphia, recently won U.S. 2,551,013 covering benzodioxan amino alcohols of the following general formula:



in which Z is selected from the group consisting of lower alkyl, lower alkenyl and benzyl.

The new compounds, including their inorganic and organic salts, are intermediates for use in the preparation of derivatives possessing physiological properties. Among such derivatives are the benzodioxan beta-haloethylamines and their salts, such as the hydrochlorides. These latter have some structural similarity to the compounds found by Drs. Goodman and Nickerson to possess sympatholytic properties, an example of one of the Goodman and Nickerson compounds being dibenzyl-beta-chloroethylamine known, in the form of its hydrochloride, under the trade-mark "Dibenamine."

Other workers in this field who have obtained patents are the Parke, Davis group led by Rieveschl and the Givaudan group led by Gump.

Vanillin from Lignin

The parade of patents dealing with the preparation of vanillin from lignin continues. P. Lagally has come up with the idea of using as oxidizing agents water-soluble organic compounds capable of transmitting oxygen. These are the so-called semipolar oxides of nitrogen, sulfur and iodine.

Lagally points out that the oxides successfully employed previously are all water-insoluble substances effective only in the heterogeneous phase and requiring pressure. Since the semipolar oxides that Lagally employs are water soluble and possess the advantage of giving up their oxygen only at temperatures above 100° C., that is temperatures which are favorable for vanillin formation, the vanillin reaction can be conducted in one phase and side reactions caused by prior art oxidizing agents attacking the lignin complex before the vanillin is split are avoided.

The oxides of tertiary amines are apparently the preferred ones. An example of one is N,N-dimethylaniline-N-oxide. Dimethyl sulfoxide and dimethyl sulfone illustrate the sulfur-containing semipolar compounds which Lagally employs. Iodosobenzene is an example of an iodin-containing semipolar.

Example 1 taken from the patent follows:

In 1000 parts by volume of waste sulfite liquor having a dry content of 11.5% by weight and a density of 1.05, 110 parts by weight of caustic soda are dissolved, and 137 parts by weight of N,N-dimethylaniline-N-oxide are introduced into the so-obtained strongly alkaline liquor. The obtained mixture is heated for 3 hours to 160° C. in an autoclave. The reaction mixture, which contains the formed vanillin in the form of sodium vanillate, is worked up as follows:

The re-formed dimethylaniline (115 parts by weight, equivalent to 95% of the

*Gaylor, Cifelli & Jurick, Newark, N. J.

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U.S.I. CHEMICAL NEWS

June ★ A Monthly Series for Chemists and Executives of the Solvents and Chemical Consuming Industries ★ 1951

Sodium Salt of Ethyl Acetoacetate Available In Sample Quantities

The sodium salt of ethyl acetoacetate is now available from U.S.I. in sample quantities. A very reactive compound, the chemical has many potential uses as an intermediate in organic syntheses.

The sodium salt of ethyl acetoacetate reacts with most types of organic halogen compounds to a varying degree. It reacts quite readily with aliphatic halogen compounds, and with aromatic halogen compounds in which the halogen is not on the benzene ring.

The chemical is extremely reactive with the acyl group (COCl), reacting readily with ethyl chloroformate and benzoyl chloride. Other reactions include preparation of ethyl-B-hydroxyethylacetoacetate by reacting with ethylene chlorohydrin, and preparation of aceto-diethyl succinate by reacting with chloroethylacetate.

Properties

Assay
70% by weight as sodium salt
Physical Form
Fluffy powder
Color
Light brown
Bulk Density
40-45 lbs./cu. ft.

New-Type Synthetic Rubber, Made from Milk, Sugars, Tops All Other Rubbers

An improved synthetic rubber, said to be better than other synthetics and natural rubber for many uses has been announced. It is claimed to have outstanding resistance to water, oils, heat, below-zero temperatures and aging. This new rubber is expected to be superior to other rubbers, both natural and synthetic, for such uses as oil seals in automobile transmissions, refrigerant seals, gaskets and linings for fuel tanks.

The improved rubber is made from butyl acrylate and acrylonitrile which can be produced from milk or corn sugars. By varying the proportions of these two compounds, the rubber's property of swelling in oil can be modified, it is claimed, without changing its resistance to heat.

'Inoculate' Timber Against Insects, Decay

A new method of treating timbers for use in coal mines involves injecting certain chemicals into living trees to "inoculate" them against insects and decay. The chemicals used so far in tests include both organic and inorganic compounds in water solutions.

The solutions are reportedly injected into the sap-stream of green trees at the base and carried through the sapwood to the foliage without entering the heartwood or the bark. Treated timbers can be used without removing the bark or waiting for the wood to season. Chemicals tested include zinc chloride, sodium arsenite, ammonium bifluoride, copper sulfate, copper carbonate with ammonium hydroxide and tetrachlorophenol.

U.S.I. to Build New Plant To Produce Allethrin

Allyl Homolog of One of Pyrethrin's Active Principles, Allethrin Will Help Fill Defense Needs for Insecticides

Plans for construction of a plant to produce allethrin, a chemical with some of the unique advantages of natural pyrethrum, were announced recently by W. P. Marsh, Jr., president of U. S. Industrial Chemicals, Inc. The plant, first to be devoted to commercial production of allethrin, will be located on U.S.I.'s property in Baltimore. Construction is to be started immediately and is expected to be completed late in 1952.

In making the announcement, Mr. Marsh stated that production of the chemical would aid materially in filling the needs of the defense effort for adequate supplies of insecticide materials, especially since pyrethrum has been scarce and is expected to continue in relatively short supply for several years. Factors in the pyrethrum shortage include increased demand for non-toxic insecticides and development of new uses for pyrethrum-type (formulations containing pyrethrins and a synergist) insecticides.

Tests have shown that allethrin has a high degree of effectiveness against house flies, making it a good ingredient for aerosols.

U.S.I. orginated the combination of pyrethrins from natural pyrethrum with piperonyl butoxide, a synthetic chemical. The synergistic action of piperonyl butoxide with pyrethrins has not only helped to extend the available supplies of pyrethrum, but has also increased the effectiveness of the older insecticide material. Combination of pyrethrins and piperonyl butoxide are marketed exclusively by U.S.I. – under the trade-name Pyrenone.

Will Supplement Pyrethrum Supplies

Work to date has shown that allethrin has a high degree of effectiveness against some species of insects. On houseflies the synthetic compound is apparently equal in effectiveness to natural pyrethrum, at least under some conditions. In tests against certain other insects allethrin appeared to be less effective than pyrethrum. Careful, thorough entomological investigations are being continued to determine correct allowances of allethrin in formulations and what the behavior of these

MORE

New 'Yardstick' Measures Millionth-of-an-Inch Film

A new kind of "yardstick" which uses different colors to measure millionth-of-an-inch thicknesses of materials in the form of extremely thin films has been developed. The new tool, called a "stepgage", is said to be used like a yardstick, but in place of linear inches are blocks of different colors, each of which represents a different thickness. The blocks of color are reportedly mounted on a length of glass in the shape of a measuring rule.

Color Varies with Thickness

In films a few millionths of an inch thick, the scientist who developed the gage explained, colors vary with changes in thickness, permitting a particular color to indicate a particular thickness. To use the stepgage, the color of a film of unknown thickness is matched to that block of color on the stepgage which is the same or similar. A thickness reading marked underneath that particular block of color on the stepgage indicates the thickness of the unknown film. Color blocks on the stepgage which the researcher demonstrated run from one-millionth-of-an-inch thick to 30 millionths, although gages with wider ranges reportedly can be made.

The stepgage is said to be proving a valuable tool in research work not only for determining extremely fine thicknesses but also for measuring ultra-light weights. Knowing both thickness and density of a material, its weight can be computed. The gage should be particularly useful in measuring materials deposited on a surface by evaporation.

Lignin 'Waste' Now Used As Rubber Reinforcing Agent

Recent research indicates that lignin, previously regarded as just a waste product of the paper industry, is an excellent reinforcing agent for various types of rubber, including natural, nitrile, and neoprene rubber and GR-S. The researchers found that when they added lignin to natural rubber it gave higher tensile strengths than any other pigment, including carbon black, at the same volume. Added to nitrile rubber it also gave higher tensile strengths, according to their report. The scientists indicated that a novel combination of properties can be obtained by coprecipitation with natural, nitrile, neoprene and GR-S. The low specific gravity of lignin also makes possible a lighter-weight product.

June ★ **U.S.I. CHEMICAL NEWS** ★ 1951

Radioactive Virus Tests Point to Cell Destruction

Recent studies of virus reproduction, employing bacteriophages labeled with radioactive tracers, may hold a clue to the reason polio and other virus diseases spread so rapidly. Test results indicate that in less than one half hour after one virus particle invades a living cell, 200 to 300 emerge simultaneously, destroying the cell.

The viruses used in the test are of a type that attack common sewage bacteria and have all the characteristics of viruses that cause diseases in humans and animals. Under the electron microscope these bacteriophages appear as particles one-hundred thousandth of an inch long, with a head, body, and tail — something like a tadpole.

By labeling various kinds of molecules within the bacteria, scientists hope to determine how viruses reproduce and how they kill cells. According to one theory they use tissue and cell compounds for food. Another theory states that the viruses use the chemical processes of the cell to produce viruses instead of normal cell constituents from the food in the surrounding medium.

CONTINUED

Allethrin Plant

formulations against specific insects will be. Although allethrin cannot be regarded as a *substitute* for natural pyrethrum for many uses, its availability will *supplement* the present limited supplies of natural pyrethrum and facilitate the current rapid expansion in the use of pyrethrum-type insecticides.

New Way To Protect Stored Grains

One of the most exciting of the new uses for Pyrenone-type insecticides is in protecting stored grains. Pyrenone* Wheat Protectant and Pyrenone® Grain Protectant, containing pyrethrins and piperonyl butoxide, are now being mixed directly with stored grains at harvest time and give season-long protection against insects. These new Protectants, non-toxic to humans and warm-blooded animals, promise to save literally hundreds of millions of dollars' worth of stored grain now destroyed by weevils and other insects each year.

*Reg. U. S. Pat. Off.

Produce Paper From Glass Fibers, Mica

Production of satisfactory paper from glass fibers and from mica has been announced. In the past, except for asbestos, inorganic fibers have not proven suitable for making paper. If it can be produced commercially, glass paper should be useful in making electrical insulation. Its resistance to combustion (up to 800°C.) will probably make it valuable as a wrapping for air-cooled transformers.

The new paper produced from mica is described as a superior dielectric for capacitors. Kraft paper condensers in use currently do not operate satisfactorily above 85°C., it is reported. The new mica paper is claimed to be stronger, to withstand heat, and to have a greater capacitance.

New Data on German Drug Research Available

Descriptions of German developments in the pharmaceutical field are reported available now in the form of English translations of patent applications filed from October 1948 to May 1950. Besides these patent applications, the new bulletin is said to have a section listing over a dozen reports that give detailed descriptions of manufacturing processes for synthetic hormones. Instructions for making desoxycorticosterone acetate, estradiol, testosterone, and progesterone are included. Reports also describe various German analytical methods.

New Book of Abstracts On Polyvinylpyrrolidone

A book of abstracts of all the published literature on polyvinylpyrrolidone, the synthetic blood plasma substitute, has been released. The 188-page volume represents the work of 284 authors and includes literature on patents and patent applications. It contains 227 abstracts covering investigations of the applications of polyvinylpyrrolidone in many phases of medicine. Included are papers on its use with other drugs, such as penicillin and insulin. The abstracts give information on studies, some completed as recently as May 1950, in Germany, England, France, Italy, and Switzerland.

TECHNICAL DEVELOPMENTS

Information about manufacturers of these items may be obtained by writing U.S.I.

New-type inks for printing on plastic film reportedly based on vinylite resins for maximum printing quality, color density, uniformity, and smoothness, give permanent adhesion permitting printed film to be wiped clean with a damp cloth without damage to design. **(No. 689)**

An unbreakable polyethylene wash bottle is said to enable lab workers to dispense liquids in a controlled stream by squeezing bottle. Bottle is fitted with polyethylene spout. **(No. 690)**

An inexpensive vacuum gauge in multi-station form for coaters, dehydrators, vacuum furnaces, etc., is described as simple to use. All stations read on a single meter and range is from a few microns to 1 mm. of Hg, it is claimed. **(No. 691)**

A new multi-purpose glue for use as a wood adhesive, abrasive binder, etc., cures rapidly in continuous lumber core binding operations and is also satisfactory for cold press-assembly gluing where heavy glue lines are unavoidable, the makers state. **(No. 692)**

To provide a lasting smooth coating for polystyrene products, a new lacquer for application in standard spray equipment is said to be available in several colors, to air dry in about 15 minutes, to have good adhesion and durability, and to give an all-over uniform finish. **(No. 693)**

A new synthetic dark organic wax, claimed to form an effective moisture barrier and to have good electrical properties, is recommended for impregnating electrical components. Other potential uses are for waterproofing and laminating paper, textiles, wood, etc. **(No. 694)**

An air-drying plastic coating for protection of chemical processing equipment against attack from corrosive chemicals, weathering, and rust, reportedly has high film flexibility, good adhesion and impact resistance. Will not chip or crack, it is claimed; can be used on steel, aluminum, concrete, hardwood, composition board. **(No. 695)**

Laminated fabrics with a three dimensional effect are reported available for use in fashion goods, draperies, furniture, etc. Color prints and patterns are said to be sealed in between twin layers of vinylite plastic which can be cleaned with a damp sponge. The patterns are embossed with three-dimensional taffeta-weave textures, according to the maker. **(No. 696)**

New paints that resist temperatures up to 1,900°F. can be applied by conventional methods to wood or metal and will resist moisture, acids, and alkalies, it is claimed. **(No. 697)**

An improved tall oil said to give fast, hard dry and high chemical resistance, is recommended as a checking oil in varnishes and modifier in flat, semigloss, and full gloss systems, barn paints, and as a wood preservative. **(No. 698)**

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amount used as oxide) is separated or distilled off with steam. The solution is then neutralized with 100 parts by volume of commercial hydrochloric acid, excess acid neutralized with 5 parts by weight of sodium bicarbonate, and then extracted for 8 hours with benzene under a slight vacuum. After distillation of the benzene, 6 parts by weight (equivalent to 10% of the starting organic substance) of fairly pure vanillin crystallize out in the course of several hours. By acidifying the mother liquor, products are obtained which can be further worked up into synthetic resin and tanning extract.

In lieu of the N,N-dimethylaniline-N-oxide in this example, use may also be made in analogous manner of an equivalent amount of tripropylamine-N-oxide, N,N,N′,N′-tetramethyl-diamino-benzophenone-N,N′-dioxide, pyridine-N-oxide, N-methyl-piperidine-N-oxide, etc.

Patented Skin Preparations—VI†

U. S. 2,437,561—issued March 9, 1948 to Fritz Schaaf and assigned to Ciba Pharmaceutical Products Inc.

This patent discloses cosmetic preparations having substances with a vitamin F effect plus nicotinamide.

Examples of substances possessing a vitamin F effect given are multi-unsaturated fatty acids and their esters or natural products containing same, e.g. linoleic acid, its esters, sunflower oil, nut oil and poppy oil.

These preparations intended for the care of the skin are used in the form of creamy or liquid emulsions.

Details of an example for preparing a specific composition follow:

Triethanolamine-stearate and triethanolaminoleate are freshly prepared from

	Parts by weight
Oleic acid	1.0
Stearic acid	3.0
Triethanolamine	1.8

and dissolved warm in

	Parts by weight
Paraffin oil	5
Sweet almond oil	10.0
Nut oil	10.0
Purified cetyl alcohol	0.5
p-Hydroxybenzoic-acid-methylester	0.2

are added to this solution the whole, heated on a water-bath until homogeneously mixed, then stirred until the temperature had fallen to 45° C., and 0.3 part by weight of aromatic mixture added.

A solution containing

	Parts by weight
A sodium salt by a sulfonic acid which is derived from a β-substituted benzimidazole alkylated at the nitrogen atom and whose substituent contains 9 to 19 carbon atoms	0.5
A 0.1 percent, nicotinamide solution in water	18.0
Distilled water	49.7

which had been warmed to 45° C. is added in small portions, shaking continually, and emulsified until the mixture has reached room temperature. In this way a preparation for the care of the skin, which can be used in the form of a "face-milk" is obtained.

Claim 2 follows:

A cosmetic preparation for the care of the skin containing a member selected from the group consisting of the naturally-occurring multi-unsaturated fatty acids and their naturally-occurring esters, plus nicotinamide.

U.S. 2,459,289—issued January 18, 1949 to Victor H. Roehrich.

This patent is based on the discovery that neutral magnesium sulphate produces unusual effects when added to many preparations containing aluminum hydroxide with acids or aluminum salts, making it easily possible to obtain novel preparations, particularly solutions or sols and jellies unusually rich in aluminum hydroxide and correspondingly low in acid content and therefore of special value for many purposes.

Claim 3 is illustrative:

A composition of matter comprising an aqueous solution of a basic aluminum salt in which the acid radical of the salt is in quantity of from over three to less than six equivalents, and magnesium sulphate in the proportion of over one-third molecule of magnesium sulphate for each two atoms of aluminum.

U.S. 2,465,340—issued March 29, 1949 to Harman Sharlit and assigned to Helena Rubinstein, Inc.

This patent deals with a cosmetic make-up cake which can be emulsified with water prior to applying it on the skin. The advantages of the cake are said to be that it does not render the skin uncomfortably dry or give rise to the formation of pimples within the depth of the skin.

The patent discloses the incorporation into the make-up material of dehydrated skim milk as the binder.

As stated in the review of this patent given in the May, 1949 issue of This Journal it appears that cosmetic make-up cakes have been made by preparing an aqueous emulsion containing water-insoluble inert ingredients such as talc, clay, kaolin, titanium dioxide, zinc stearate and the like, some pigments, an oil material compatible with human skin, such as mineral oil, petrolatum, lanolin, spermaceti or mixtures thereof, and a water soluble binder, such as soap or soap equivalents, evaporating the water, and compressing the remaining material into cake form. The binder serves to supply a homogeneous covering to the skin by keeping the texture ingredients and the pigments bound within the film formed on the skin.

Objections to the known cosmetic make-up cakes were their tendency to render the skin uncomfortably dry and the formation of pimples.

According to the patent it has been found that best results are obtained with mixtures containing about 88 to 100 parts by weight of pulverulent water-insoluble texture ingredients and pigments, about 10 to 11 parts by weight of an oil substance selected from the group consisting of mineral oil, petrolatum, lanolin, spermaceti and mixtures thereof, and 5 to 15 parts by weight of dehydrated skim milk as a binder.

Example 1 of the patent follows:

70 lbs. of talc were mixed with 15 lbs. titanium dioxide, about 3 lbs. pigments, about 15 lbs. dehydrated skim milk and about 0.25 lb. sodium lauryl sulfate.

The mixture was passed through a micro-pulverizer to obtain complete intermingling of the finely distributed ingredients.

Then the powdery mass was placed in a suitable mixer and 5 lbs. mineral oil, 5 lbs. yellow petrolatum and 10 lbs. glycerol were added.

The combined materials were again passed through the micropulverizer and the material was then compressed into cake form and ready for use.

An idea of the amount of protection obtained is given by claim 1 of the patent which follows:

A substantially dry solid cosmetic make-up cake emulsifiable with water by rubbing the surface of the cake with a moistened applicator, said cake consisting of a compressed body containing an intimate mixture of about 88 to 100 parts by weight of water-insoluble pulverulent inert texture ingredients including about 3 to 5 parts by weight of pigments with about 10 to 11 parts by weight of an oily material compatible with human skin, and about 5 to 15 parts by weight of dehydrated skim milk as a binder.

U. S. 2,492,085—issued Dec. 10, 1949 to Carl N. Andersen, assigned to Elizabeth Arden, Inc.

Aluminum chlorohydrate is said to be a good astringent, being of the order of 15 times as effective as aluminum sulfate and non-irritating to the skin or detrimental to any clothing with which its compositions come in contact.

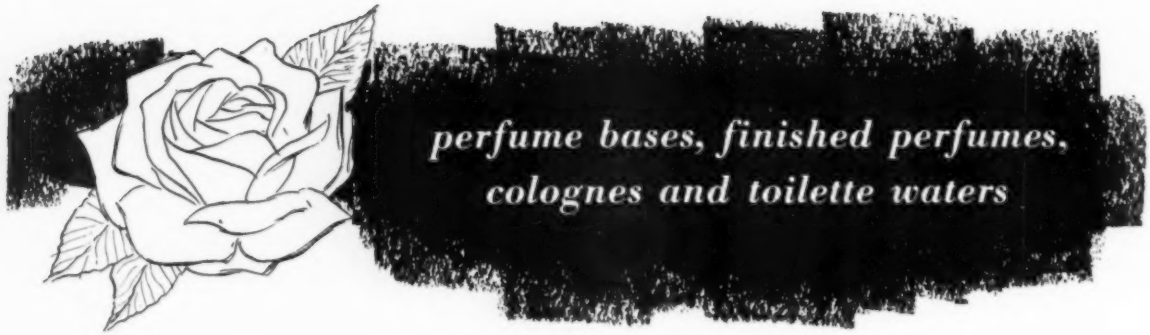
Claim 1 follows:

An astringent composition consisting essentially of an aqueous medium in major proportion, and containing an aluminum chlorohydrate in which the ratio of aluminum to chlorine is 2:1 and having the probable formula:

$$Al_6(OH)_{15}Cl_7$$

in proportions to produce an astringent action and an emulsifier.

† I-This Journal, November, 1950
II- " " , February, 1951
III- " " , March, 1951
IV- " " , April, 1951
V- " " , May, 1951



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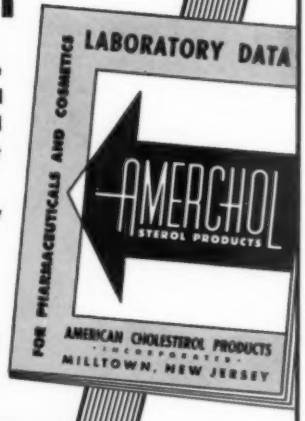

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YOUR TRADE-MARK RECORD

by John H. Graham

International Patent and Trade-Mark Consultant

Can You Use Your Own Name in Business?

The question of a person's right to use his own name in business where someone else with the same name is already established in the field often comes up. It is always an interesting question and one which can only be answered on the facts.

First of all, it is obvious that any man has the right to use his own name in business. It is a legitimate possession of his which he should be entitled to normally exploit. A man may be known and respected in his chosen field. He deserves the prestige of his name.

But what happens if that name is the same as one already well established in the field? Obviously, there is confusion. Obviously, the public will not know exactly which of the two parties is the originator of goods bought. This is even worse when the location of both parties is similar, for example, in the same state.

In such a case, the Courts examine the facts to see whether or not the newcomer in the field should be stopped or limited. Mostly, such cases turn upon the intent of this newcomer—whether he is trying to "cash in" on the other's glory or popularity. Usually, these matters are not trade-mark controversies, but are brought into Court as Unfair Competition cases. A case of this nature was recently reported which contains the essential ingredients for answering our question.

A firm named Osborn Paper Company sued Carrold Osborn Paper Company, Inc. for Unfair Competition. Both companies sold the same goods and both used "Osborn" as a trade-name identifying those goods. Osborn Paper Company had done business using "Osborn" on its paper goods since 1907. It was organized by people bearing the name "Osborn." In 1949 the "Carrold Osborn Paper Company, Inc." came into being, a Mr. Carrold Osborn being a minority shareholder. The goods were in the same class. The offices of the newcomer "Osborn" were located within 100 yards of the offices of the older Company.

The Supreme Court of the State of Missouri upheld the rights of Osborn Paper Company against the newcomer. In the decision, it was stated:

> "The right of a man to use his name has its limitations; one may not use one's own name for the express purpose of appropriating a competitor's business or goodwill, or resort to any artifice in the use of the name for the purpose of misleading the public as to the identity of the goods or the business."

This clearly sets forth the manner in which a person *cannot* use his own name. Again, in the decision, this was emphasized as follows:

> "Generally speaking every person has the right honestly to conduct his own business under his own name, but he must use that name with due regard to the rights of another person or corporation having the same name."

These comments refer to the side of the newcomer, to some extent, setting up for him the negative rules he must adopt. On the side of the older party in the field, who naturally is always wary that his good name shall not be infringed upon, perhaps this quote will show him his strength:

> "A personal or family name may acquire a secondary meaning to the public so as to entitle the user to protection against unfair use by another. Where a family name has become established as a trade-name, a later user of the same or a similar name must use such precautions as are necessary in order to distinguish his goods or business from those of the prior user."

The above, plus the fact that under the Lanham (1946) Trade-Mark Act it is sometimes possible to register such notations of origin as trade-marks, should serve to put at ease the mind of anyone who has long used his own name as a trade-name and is always afraid of encroachment of the type reported.

More Recent Decisions

The following decisions are of interest in our constant search to arrive at some yard-stick to measure descriptiveness and confusingly similar marks:

1. The Court of Appeals (California) held that "*Wed-lok*" was not descriptive of wedding and engagement ring ensembles and that "*Feature-lok*" for similar goods, namely rings, was not confusingly similar to "Wed-lok." This affirmed the lower Court decision.

2. "CRAZY STUFF" was not considered confusingly similar to "SILLY PUTTY" for identical goods, these being "an organo-silicone compound which possess certain unusual characteristics making it attractive as a novelty toy being soft and pliable, rolled tightly into a sphere it bounces like a ball; struck sharply, it shatters, etc." This was a New York District Court decision.

3. "FLEX-WEAVE" was held by the Patent Office, on appeal, to be descriptive of metal link ornamental bracelets and bracelets for watches.

4. The Patent Office held, in A. H. Robbins Co. Inc. versus Van Pelt and Brown Inc., that "*Venaphen*" was confusingly similar to "*Phenaphen*," both being trade-marks associated with pharmaceuticals.

(*Continued on page 807*)

- ☐ ALKALOIDS
- ☐ AMINOACETIC ACID
- ☐ AMINOPHYLLINE
- ☐ BENZOCAINE
- ☐ BENZYL BENZOATE
- ☐ CAFFEINE
- ☐ CHLORAL HYDRATE
- ☐ CHOLINE SALTS
- ☐ CINCHOPHEN
- ☐ DEHYDROCHOLIC ACID
- ☐ DESOXYCHOLIC ACID
- ☐ DESOXYEPHEDRINE HYDROCHLORIDE
- ☐ EPHEDRINE SALTS
- ☐ MENTHOL
- ☐ METHYL SALICYLATE
- ☐ METHYL PHENYL ACETATE
- ☐ PABA
- ☐ PARA AMINOSALICYLIC ACID
- ☐ PENICILLIN PRECURSORS
- ☐ PENTOBARBITAL SODIUM
- ☐ PHENOBARBITAL
- ☐ PHENYL ACETAMIDE
- ☐ B-PHENYL ETHYLAMINE
- ☐ PROCAINE
- ☐ RUTIN
- ☐ SANTONIN
- ☐ SODIUM PABA
- ☐ SODIUM PARA AMINOSALICYLATE
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(Continued from page 790)

anticoagulant, heparin; and Digitora, the first standardized whole-leaf preparation of the heart drug digitalis. Orthoxine Hydrochloride is an Upjohn-discovered ephedrine-like synthetic which shrinks the nasal mucosa, is a bronchodilator, and an anti-spasmodic; however, unlike ephedrine, it is relatively free from undesirable side effects. Orthoxine is used primarily for the treatment of asthma. Pyrrolazote is the Upjohn antihistaminic for controlling various allergic conditions.

Ammoniated Dentifrices and the Caries Problem

(Continued from page 725)

circulation and removes debris accumulations which harbor bacteria. Thus as a purely mechanical device, the tooth brush serves as an excellent therapeutic measure for the promotion of oral hygiene.

The fourth category for caries prophylaxis is the therapeutic dentifrice. There is perhaps more published data today on the ammoniated dentifrice than on any other single therapeutic dentifrice. There are also therapeutic claims for a chlorophyll dentifrice and the newer penicillin dentifrice. However, there is not much published data on the therapeutic value of the chlorophyll or penicillin dentifrices. There has been insufficient data collated to warrant a claim for efficacy which is the principal raison d'etre for such products. Clinical studies on the penicillin dentifrices have been

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of short duration, too short for proper evaluation as a caries inhibitor and the possible appearance of penicillin-fast strains of bacteria or the incidence of allergic reactions'. However, another objection to penicillin dentifrices is the disturbance of and interference with the normal oral flora.[6] The suppression of the gram positive organisms and proliferation of gram negative bacteria presents a hazard of yet undetermined significance. The FDA has already recognized this problem and proposed a warning, advising the physician or dentist to be alert to this overgrowth of usually recessive strains, the worst offender having been the Monilia (Candida) species. In the use of other dosage forms of penicillin, there have been several reports of Moniliasis resulting from the antibiotic therapy and a few deaths from infections with this yeast-like fungus. Certainly these dentifrices should be used under careful competent supervision, at least until considerably more clinical experience has been gained with them.

That leaves the ammoniated dentifrices as the peer of therapeutic dentifrices. Shortly after the ammoniated dentifrices appeared on the market, a Readers' Digest article spread their claim and made more people "caries conscious" than ever before. The companies who promoted the ammoniated dentifrices carried the campaign until almost everyone knew of "caries control."

There were, and still are, two principal schools of ammoniated dentifrice proponents. These have advocated the high urea dentifrice formulas (Amm-i-dent Tooth Powder and Amm-i-dent Tooth Paste) and the low urea dentifrice formulas (the licensees of the University of Illinois Foundation). Both of these groups recognize the caries inhibition obtainable by routine use of a dentifrice containing urea and dibasic ammonium phosphate but differ on the amount of these substances required.

Their early clinical experience was supported by a considerable amount of other clinical work with urea. The value of urea in accelerating the regeneration of tissue in war wounds was first reported after World War I.[10] The bactericidal value of urea and its seeming acceleration of healing of various lesions has been repeatedly reported in the literature.[2] Then the Drs. Grove and Grove[4] reported on their findings which linked caries immunity to salivary ammonia content. They attempted to supply this possible immunizing factor but failed to take into account the rapid dilution which occurs in the oral environment as a result of saliva flow. They used a solution of ammonia in the relative concentration in which it appeared in the saliva which obviously was an inadequate quantity. The transition to other substances was a natural one and the search for palatable compounds which would release ammonia to the oral environment resulted finally in the selection of the two compounds, urea and dibasic ammonium phosphate. That this was a fortuitous choice was later discovered when it was found that these compounds had a synergistic activity, the net result of the combination being greater than the combined effect of either compound used alone.

Now a considerable amount of time has transpired and much new scientific data has accumulated. The indirect evidence which indicates that urea and diammonium phosphate should have some effect on the tooth, and, therefore, on the carious process, is rapidly being confirmed by clinical experience. Much of this clinical experience is still too immature to be reported in detail, but the trends are there and can be considered indicative.

The indirect evidence is sufficiently interesting to be considered in detail. It has long been known that the oral flora contains a considerable number of bacteria which produce the enzyme, urease. These bacteria are, therefore, capable of splitting urea into ammonia and water with the ammonia combining in the mouth to form the alkaline salts. This probably is the mechanism by which the normal salivary ammonia is produced since these oral bacteria can split the urea which dialyzes through into the saliva from the lymphatic and circulatory systems. It has also been shown that where a sufficient quantity of urea is present, the ammonia produced, more than neutralizes any oral acid produced by the glycolytic oral flora. Thus the pH of the oral environment is maintained above any critical solubility level of the dental enamel.

In another recent investigation, a technique was described for measuring and following the pH changes of the tooth surface.[8] In this work, it was reported that an oral rinse with a solution of urea and diammonium phosphate in the proportions in which they exist in the high urea dentifrice was capable of raising the pH of the tooth surface for more than two hours. While the observation was not elaborated on in the report, it seems probable that the urea dialyzed into the protein substance of the tooth from the hypertonic urea solution used as the oral rinse. If this is so, then as the oral urea concentration was reduced, the urea which penetrated the tooth structure would dialyze out to be hydrolyzed at the surface by the urealytic bacteria which would account for the prolonged elevation of the surface pH.

Another finding reported in this study was that a solution corresponding to the low urea dentifrice formula also raised the pH of the tooth surface indicating some penetration of the protein matrix by the urea. However, both the degree and duration of pH elevation were considerably less than those attained with the high urea formula. A further finding was that ordinary cosmetic dentifrice suspensions with an akaline pH and distilled water had little or no perceptible effect on the pH of the enamel.

While the significance of these findings with respect to caries inhibition is too deeply entwined with the enigmatic causation of caries, it is reasonable to deduce that the neutralization of bacterial wastes will help preserve the healthy condition of the teeth. It has also been reported that urea inhibits proteolysis and enhances restoration of normal tissue function in other somatic lesions. Therefore, whether proteolysis or

(Continued on page 804)

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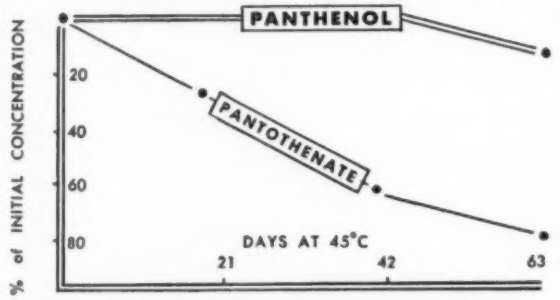

A comparison of the relative stability of panthenol and a pantothenate in a liquid multivitamin preparation at pH4. Data from Rubin; J. Am. Pharma. Assn. (Sci. Ed.) XXXVII, 12, 1948.

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(1) Rubin, et. al.; Journal of Nutrition, 35: 499, 1948
(2) Rubin, et. al.; Federation Proceedings, 8: 1, 1949 (J. Nutrition, 40: 265, 1950)

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ABREAST OF THE MARKETS

SEVERAL PRICE DECLINES IN ESSENTIAL OILS, CITRUS OIL OUTLOOK UNFAVORABLE; BOTANICALS ARE SLUGGISH

The markets were still in quite a confused state during May, owing to the indefinite future in respect to the Korean war, the magnitude of the fight against inflation in Washington, and the local struggle with ceiling prices on imported items coupled with the recent change in price restrictions. It was too early last month to determine whether or not the new OPS order on price ceilings in respect to imported items would improve the supply situation in this country or not. Essentiai-oil and botanical houses reported that there is still ample material on spot for the time being but that the supply could not hold out interminably, or until that indefinite period when the war in the East will have ended.

Some houses hesitated to give any price information on essential oils, claiming the figures misleading as they would not represent the true price range of the items, but would merely be listings of the ceiling prices of the respective sources. Other dealers, however, quoted freely and reported several declines in price. Whether the announced price reductions represented a concomitant decline in shipping figures, as far as imported items went, and a decline in handling charges as far as the domestic oils is concerned is not known. Nor is it known whether or not some of the houses were willing to sell a few of their oils at a loss for the present in order to maintain the business. But nevertheless, some declines were reported in the essential oils.

In the case of citronella oil and lavender oil, both of which fell during the month, their lower prices definitely reflected a decreased shipping price from abroad. Most spokesmen in the trade felt these reductions were in no way tied up with the price ceilings in this country. They further stated they did not believe the absence of American dealers in the world market (caused by the restricted prices beyond which they cannot pay for commodities) has had a sluggish effect on the sales of foreign growers and producers.

If additional items begin declining in future months, however, this may prove to be just such a trend on the part of foreign shippers. It stands to reason that if the producers cannot sell all their material at the currently high prices, they will reduce them to meet with the American ceilings in order to enlarge the market for them. Perhaps the expanding European market will be able to absorb all that the growers have to offer—in which case, American price controls will have to be revised upward.

Botanicals last month were characterized by a very low demand, which had apparently stemmed from the large inventories in the possession of consumers. Most inventories were inflated during the beginning of the Korean War when consumers feared dire shortages. High prices that followed tended to discourage buying, and now large stocks are still on hand in most cases.

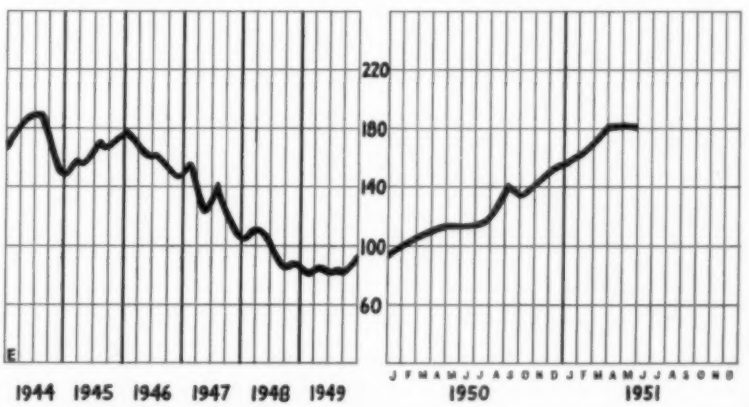
Coupled with the price difficulty in this country is the actual scarcity of a number of oils and botanicals at the source of supply, as in the case of most of the balsams, bergamot oil, African and Bourbon geranium oil, the citrus oils (both domestic and foreign), aloes, anise seed star, and gentian root.

Citrus Oil Situation

H. P. Wesemann, vice-president of Fritzsche Brothers, Inc., discussed the citrus-oil situation very thoroughly before the annual meeting of the Flavoring Extract Manufacturers Association last month, painting a not-too-bright picture. He confirmed the fact that the Florida orange oil industry is moribund at present, owing to the nature of the oil extraction machines. The story, as told before, is that machines previously used were so designed as to extract the juice from the fruit by means of a tube inserted in the middle of the orange, while at the same time the oil was extracted from the peel by metal fingers in the form of a basket. The chief difficulty of this procedure was, according to Mr. Wesemann, that pectin was drawn out of the peel at the same time and contaminated the juice. The manufacturers thereupon discarded these machines and installed new equipment, which, up to this time has not been able to extract the juice and oil simultaneously because of mechanical reasons. Although engineers

(*Continued on page 802*)

15 Essential Oils—Weighted Price Index. 1926 = 100.



The essential oils index declined from 184.2 to 183.3. Bergamot oil went down; citronella and cassia oils went up.

Prices quoted in this section were current on the first of this month.

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DEMAND INCREASING FOR VANILLA, MENTHOL PRICE TREND REVERSED; GLYCERINE DEMAND REPORTED LEVELING OFF

In the vanilla bean field, Ray C. Schlotterer, secretary of the Vanilla Bean Association, reported that imports into the United States amounted to 2,312,000 pounds in 1950, or almost double the 1949 figure of 1,181,000 pounds. He further said that a recent survey indicated that 42 per cent of the users who were questioned listed vanilla as having an increasing demand, while the supply was not hindered very much by the country's defense program: vanillin, on the other hand, was becoming tighter.

"Price controls did not upset the vanilla industry as was true of other fields, because prices were previously adjusted to current costs," he continued. In addition, vanilla beans have been exempted from any import restrictions, a factor which might have caused more conservative buying since their was no rush to meet a price ceiling or restriction deadline. "We believe," Mr. Schlotterer stated, "that business will be good during the balance of the year, better than during the same period last year, and that vanilla will tend to hold its position as the country's top flavor."

Production of cured vanilla beans in Mexico in 1950-51 is estimated at 175,000 pounds, 40 per cent higher than the poor 1949-50 output but 69 per cent below the 1947-48 record crop, according to *Foreign Commerce Weekly*. The low production in the past two seasons is attributed to adverse weather conditions and to unfavorable prides. The quality of 1950-51 production is considered good.

Stocks of vanilla in Mexico are estimated at about 121,000 pounds, including the 1950-51 crop now being cured and stocks of about 44,000 pounds from the old crop. The exportable surplus is estimated at 210,500 pounds.

Menthol a Little Firmer

Menthol reversed its downward price trend last month to advance from $11.25 up to $12.00 for the minimum figure and $12.40 for the upper limit of the range. Supplies in this country are more than adequate at the prsent time. The future trend of the market is very uncertain at the present time, however, in view of the almost complete embargo imposed on China. Japan may offer some material for shipment later in the year, but this is not expected to amount to very much.

If the Korean War persists, the chances are that England will have to order future stocks from Brazil. This will mean a greatly increased demand for the Brazilian market, which will in turn most likely result in higher prices. If peace is achieved in Korea, on the other hand, and the sea lanes to and from China opened once again, ample menthol will be made available, and the price will remain stable.

Cod Liver Oil Demand Active

Demand for USP cod liver oil was good last month, according to sources in the trade, indicating that consumers were maintaining a steady consumption. Supplies were declared sufficient to fill current needs, and although this year's production figures were considerably greater than those of last year, still no surplus was believed possible. This was explained by the fact that European countries were consuming large quantities on the Norwegian oil.

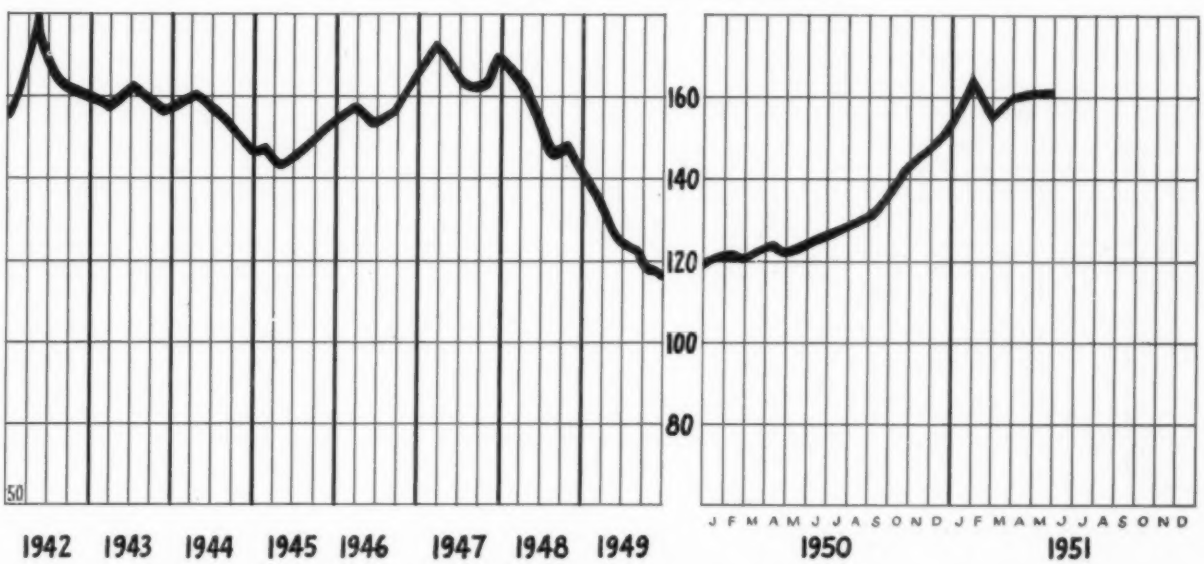
Glycerine Demand Eased

All the major producers report that glycerine is still in a firm position but by no means critical. During the past month demand for the item is said to have lessened considerably, chiefly because many of the defense contracts which have been issued have not been filled yet. This is said to have been caused by the limited scope of the Korean War, and was emphasized by the National Production Authority which last month announced that glycerine would not be allocated in the foreseeable future.

Peppermint Oil Crop Normal

As for peppermint and spearmint oils, the plants were just beginning to break the ground last month; in the middle west the roots were said to have wintered poorly, leaving no possibility for an increased acreage. Weather conditions permitting, there will be a normal production this year amounting to that of 1950.

50 Raw Materials—Weighted Price Index. 1926 = 100.



The price index of fifty commodities for May advanced slightly from 161.1 to 161.6.

MAY PRICE CHANGES

UP	DOWN	
Aloes, Curacao 14c	Cade Oil 15c	Origanum Oil 50c
Anise Seed Star 7c	Caraway Oil 75c	Patchouli Oil $2.00
Asafoetida 3c	Cedar Wood Oil 10c	Peppermint Oil, Redist. 20c
Bergamot Oil $1.70	Citronella Oil, Ceylon 35c	Petit Grain Oil, S. A. 85c
Cassia Oil, Redist. 50c	Citronella Oil, Java 15c	Rosemary Oil 5c
Gentian Root 8c	Dill Oil 5c	Thyme Oil, Red 40c
Jalap Root 5c	Grape Fruit Oil 25c	Wormseed Oil, 65c
Menthol 75c	Juniper Berry Oil 75c	Wormwood Oil, 50c
Saffron, Valencia$ 2.00	Orange Oil, W. Ind. 10c	

Anise Seed Star Higher

Anise seed star advanced 7c in May to 45c, and, along with anise oil and cassia oil, became much more difficult to procure, especially since England joined the UN embargo of Chinese products. Up to the present time it has been possible to purchase commodities of Communist origin from non-Communist sources by first proving that the selling country had bought the material prior to the embargo, and had been storing it in warehouses. These stocks today, however, are dwindling rapidly, and after this reservoir has dried up, it will no longer be possible to buy these items through acceptable channels until the Korean War ends and diplomatic relations with the East are restored. The British embargo has sealed the anti-Communist ring even tighter; its effect will probably be felt quite strongly in the next few months if world conditions continue in the present direction.

Citrus Oil Situation

(*Continued from page 799*)

are working on the problem, no solution has been reached as yet, and essential-oil production in Florida has ceased.

Quite naturally, the price of the Florida oil has jumped way up to $2.15 because of the small production figures. California has had to take over the extra demand and has also advanced their price, since this source cannot keep up with the demands, as evidenced by the disappearance of the former two-years' backlog of oil normally kept on hand. The outlook of the oil at present points to a good supply later in the summer or early autumn, stated Mr. Wesemann, who declared the fruit crop is excellent this year, as far as size and quality is concerned. It is late by about five weeks, however, and the fruit is of such excellent quality that the more than 14,000 growers may want to postpone picking it until August and September when there may be a very good fresh-fruit market. Normally about 35 per cent of all fruit grown is sent to the products plant for salvage and usually reaches the plants in a continuous stream, but by leaving the fruit on the trees until late summer, the growers will interrupt this steady flow to the processers.

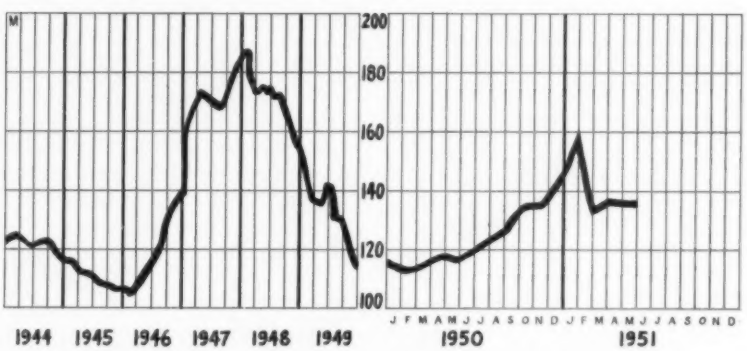
A further stumbling block may be encountered in the fall if the growers find the market for fresh fruit has collapsed, for then all the remaining fruit will be picked at once and sent to the processing plants en masse. This would overload the plants which would be unable to handle the sudden influx of oranges; the idle fruit would probably spoil before reaching the processing stage, and this in turn would result in a decreased oil production.

What applies to orange oil also applies to lemon oil, for the "very ample warehouse stocks of oil existing about a year ago were bought up and consumed at an ever increasing rate." Mr. Wesemann continued, "No doubt the scarcity of orange oil has very much accelerated lemon oil consumption . . . The season is at least five weeks late, the fruit crop is excellent and very abundant, but the flow of fruit for processing is very much retarded and sporadic. It is still believed that during this season more lemon oil will be produced than during any other previous year."

There is no chance of any shipments of the oil from Italy, for the production there has been decreasing and prices have been continuing upward.

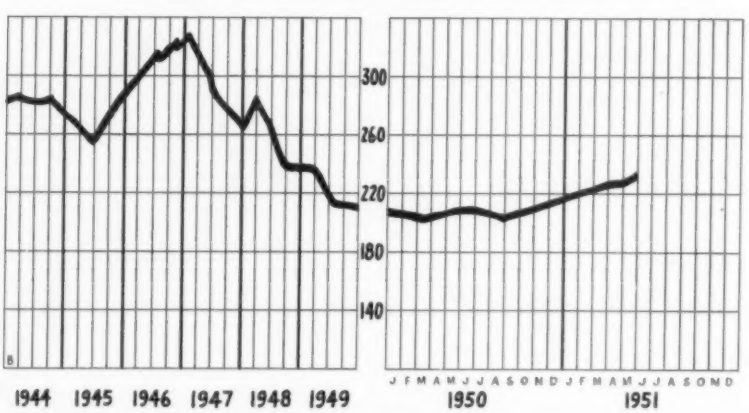
Lime oil, too, is expected to be in short supply, with this season's production expected to be about half of that of last year. In Mexico, chief source of the oil, the season started late, there was extensive damage due to frost, the blackfly has destroyed

15 Medicinal Chemicals—Weighted Price Index. 1926 = 100.



The medicinal chemicals index declined from 135.6 to 135.4. Menthol was lower.

15 Botanicals—Weighted Price Index. 1926=100.



The botanicals index went up from 227.8 to 234.6. Aloes and gentian root were higher.

large sections in producing areas, and there is a good market for fresh fruit—all of these factors tend to reduce the oil supply.

The frost earlier this year also raised havoc with the grapefruit crop in Texas, where 95 per cent of the trees were reported damaged. This setback, Mr. Wesemann avers, could curtail oil production there for four or five years.

Aloes in Short Supply

Aloes from Curacao advanced 14c in May to the range between 50c and 55c. Ordinarily most aloes comes from Capetown, Africa, but at the present time this source is so far behind in shipments that it cannot possibly fill current orders for many months. As a result the demand for aloes has swung to the Netherlands West Indies Curacao where the aloin content is twice that of Capetown, and the price on a higher level. The sudden increased demand for this source of aloes has boosted the price of the material.

Bois de Rose Supply Improves

Reports have been received in the trade to the effect that stocks in Brazil have increased immeasurably; further evidence is offered by several recent arrivals of the oil in the United States. Some sources quote the material as low as $4.70 a pound, and extend to $5.75.

Cascara Supply Low

Cascara sagrada remained in the range between 38c and 42c last month, while it appeared that spot stocks were unusually depleted. Sources in the trade indicated that replacements, if available at all, would arrive haltingly.

Collection of the bark is suffering greatly, primarily because the labor, normally diverted to the botanical industry at this time, has been attracted to the lumber industry which is offering higher wages for logging operations. It is said that the cascara bark peelers are receiving higher wages this year than last, but the figure apparently still cannot compete with the sums earned in lumbering.

Agar Continues Firm

Although the demand for agar has been slight for several months, and there has been ample material available to fill consumer needs, the price has remained around $1.75. There is no softening trend in sight.

Wormseed Oil Down

Although some essential-oil houses reported a decline in wormseed oil amounting to as much as 65c, bringing the price down to $7.85, the oil is said to be in a very precarious state. Replacements are almost out of the question since any offers that have been made have been considerably above the ceiling prices prevailing in this country. The next crop is not due until November, when some relief may be expected.

Patchouli Oil Down $2

Patchouli oil declined from $25 to $23 last month in the face of large shipments of material arriving in this country. Dealers in the trade issue a word of caution, however, to the effect that much of the imported material is of inferior quality and should be purchased with extreme care.

Cassia Oil Higher

Cassia oil advanced to $5.75 in May, with little chance for obtaining replacements, in view of the strained relations with China and Communist dominated territories. The general belief is that all of these Eastern oils will become very much more difficult to obtain, especially now that England has sanctioned an embargo on shipments in or out of China.

Bergamot Oil Remains Tight

Bergamot oil advanced $1.70 last month to the range between $9.00 and $11.50, and there was no sign of any relief at that time. While very minute quantities were being offered from the origin, some dealers were said to have been offering small lots of the oil at about $8.50.

Gentian Root Has Small Carry-over

Gentian root was 8c higher last month, selling for 24c a pound, because the old crop had been completely sold out, leaving no carry-over whatsoever. When the new crop was offered for sale, therefore, the demand soon outstripped the supply and caused the price to mount. The same situation is true of Jalap Root.

Alcohol Expected to Fill Needs

No price change occurred in alcohol last month, and it appeared that there would be adequate supplies for the present time. Opinion has been expressed in the trade, however, that the commodity would most likely become tighter in the second half of the year. According to Frank E. Bennett, chief of alcohols and solvents in the chemical division of the National Production Authority, the government intends to buy alcohol from foreign countries for 1952 consumption, a move which will help relieve the pressure on domestic producers. Speaking before the annual convention of the Flavoring Extract Manufacturers' Association last month, he added that controls on alcohol will be unnecessary in view of this development, provided the world situation does not become more acute.

The alcohol tax unit of the Bureau of Internal Revenue, Treasury Department released the following data last month on the supply, production, withdrawals, and stocks of ethyl, completely denatured and specially denatured alcohol during March, 1951, compared with March, 1950:

Production

	Proof gallons 1951	1950
Ethyl	35,629,494	27,303,899
*Completely denatured	65,182	—131,970
*Specially denatured	21,374,604	16,671,219

Note: Negative production figure results from deduction of completely denatured alcohol, previously reported produced, which was converted to specially denatured alcohol.

Withdrawals

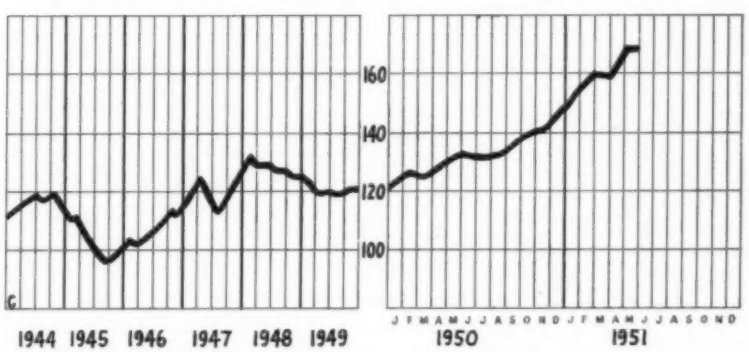
	Wine gallons 1951	1950
†Ethyl, tax paid	2,936,608	3,846,069
tax free	31,524,421	30,586,367
*Completely denatured	76,186	61,926
*Specially denatured	20,371,980	17,023,659

Stocks

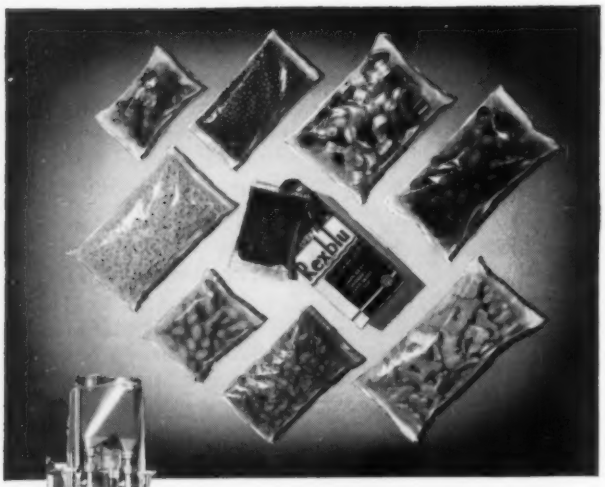
	Gallons 1951	1950
†Ethyl	65,961,863	24,049,437
*Completely denatured	32,641	107,814
*Specially denatured	2,484,405	2,764,912

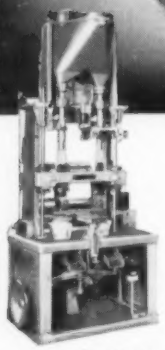
*Wine gallons. †Proof gallons.

25 Cosmetic Raw Materials—Unweighted Price Index. 1926 = 100.



The cosmetic raw materials index inched up from 169.0 to 169.4. Menthol was higher.





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Ammoniated Dentifrices and the Caries Problem

(Continued from page 797)

glycolysis is the initiating mechanism, it is obvious that some measure of protection is afforded to the tooth by application of the urea.

Thus, once one has established that, by penetration of the contiguous tooth surface, urea may help to prevent caries or other pathological processes and maintain a normal tissue structure, it becomes increasingly important to determine whether or not urea can penetrate the tooth surface. The paper previously discussed reporting on the in situ pH measurements at the tooth surface was indicative but by no means conclusive evidence of such penetration. However, other reports in the recent literature have established enamel penetration by other means. Drs. Wainwright and Lemoine,[11] working at Los Alamos Laboratories in New Mexico used the radioactive isotope of carbon, C^{14}, in the urea molecule to follow the penetration of this compound. They applied the radioactive urea solution to the tooth surface and then made radioautographs of a cross section of the tooth to trace the parts of penetration of the urea into the tooth structures. Radioactive carbon is an extremely weak beta ray emitter so that the procedures involved are difficult and time consuming. These investigators were the first, to this author's knowledge, to point out that urea could penetrate the intact enamel surface of the tooth. Prior to this report, penetration of tooth enamel was a matter of opinion but here was the definitive report confirming the hypothesis that some compounds, at least, were capable of rapidly penetrating the barrier of the tooth surface.

This work at the Los Alamos laboratory was confirmed and enlarged by a later report. Not only could urea penetrate from the environment into the internal structure, but it could also penetrate from the internal structures to the environment. They also reported that urea was a unique compound with respect to its penetrability of the tooth surface since other compounds tested were either unable to diffuse past the surface or did so only after prolonged contact and in small quantities.

Another recent report confirmed in Wainwright's observation by an ingenious laboratory technique. In this excellent experiment the authors prepared the pulp chambers of excised teeth and then used the surface as a semi-permeable membrane. They placed the tooth in a solution of urea and placed distilled water in the pulp chamber. Then after a prescribed period, they demonstrated the presence of urea in solution in the distilled water of the pulp chamber which proved that urea cold penetrate through the tooth surface. They found also that ammonia could penetrate through the tooth surface but sucrose, dextrose, and boric acid gave negative results. These compounds did not pass the barriers of the tooth enamel which indicates a certain uniqueness of the urea molecule. Of course, it would be interesting to study

the reaction of the tooth surface to other molecules to see whether the selective action is due to electrostatic forces, molecular size, molecular configuration or other phenomenon.

This accumulation of evidence concerning the unique action of urea and ammonia on the tooth receives continued corroboration. Another paper recently reported that the high urea dentifrices had the most profound and prolonged effect on tooth plaque of any of a series of ammoniated and non-ammoniated dentifrices. They found that both Amm-i-dent Tooth Paste and Amm-i-dent Tooth Powder elevated the pH of the plaque well over to the alkaline side and maintained it there longer than even the strongly alkaline cosmetic dentifrices.

The foreign literature has also contributed to the newer information on urea and diammonium phosphate. Drs. Jenkins and Wright[5] have published two exhaustive articles in the British Dental Journal concerning the biochemical activities of urea and diammonium phosphate. They have found that the early suggestions that urea and diammonium phosphate are effective because of their ability to inhibit glycolytic bacteria could probably be true only of the high urea dentifrice formula. They found that urea and diammonium phosphate do not inhibit *Lactobacillus acidophilus* in the concentrations previously reported in the American literature. They did find, however, that concentrations of 8 per cent or more of urea would inhibit L. acidophilus although inhibition at such a concentration would probably occur as a result of increased osmotic pressure in the medium solution. As a matter of fact they did show that other compounds were inhibitory at the same concentrations but that the ammonium ion salts were somewhat more toxic.

However, they presented a considerable amount of indicative and new information. They showed, for example, that 11 per cent urea inhibited lactic acid formation whereas lower concentrations of urea not only failed to inhibit lactate production but rather seemed to have stimulotory effect on the lactate producing system. Where the urea was combined with an alkaline salt, as, for example, diammonium phosphate, a lower concentration of urea was required They reported that in the presence of 8 per cent urea and 2 per cent of diammonium phosphate, aciduric bacteria were capable of producing only a trace of lactate. Their findings indicated that urea plus the diammonium phosphate was more inhibitory than the urea used alone. It is also interesting to note that Jenkins and Wright confirm the earlier observations of Howe made in 1912 that low concentrations of diammonium phosphate stimulate lactate production.

Jenkins and Wright also point out that glycolysis as a cause of caries has not been confirmed and the proteolytic bacteria may eventually be shown to have some role in this process. However, they extended their work to show that the high concentrations of urea and diammonium phosphate inhibited the proteolytic bacteria of saliva as well as the aciduric bacteria and

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concluded that the urea-diammonium phosphate effect on bacteria is general and not specific for the aciduric bacteria.

Thus, the theoretical background for a cariostatic effect has been established. It has been shown that urea and diammonium phosphate can raise the pH of the tooth as measured at the tooth surface for prolonged periods of time. This effect is more pronounced with a solution corresponding to the high urea formula dentifrices than with the low urea formula dentifrices. This work was independently reported using the accumulated tooth plaque in situ as the test site. In this work it was found that the high urea formula dentifrices were the only ones of all those tested which had any pronounced or prolonged effect on the tooth plaque.

Then, by techniques of dialysis or with radioisotopes, it has also been shown that the urea molecule is unique among those compounds tested in its ability to penetrate through the tooth enamel. It has also been shown that the oral environment harbors bacteria capable of hydrolyzing urea to ammonia thus making ammonia available to the environment from the applied urea. And finally, it has also been reported that the higher concentrations of urea are capable of inhibiting lactate production and the growth of both aciduric and proteolytic salivary bacteria.

But the final test of the efficacy of any therapeutic dentifrice is its clinical effect under use conditions. In several studies on experimental animals, urea and mixtures of urea and diammonium phosphate have been shown to be capable of inhibiting hamster caries. In one experiment urea fed to animals on a cariogenic test diet produced a significant reduction in hamster caries. In another experiment on a small group of hamsters, daily brushing with a high urea dentifrice was shown to produce a 55.4 per cent reduction in hamster caries. However, while the hamster is probably the most satisfactory of the available laboratory animals, the carious lesion can be produced only with a radical change in diet employing large dietary supplements of refined sugar.

Thus the clinical determinations in the human remain as the only final criterion of efficacy. And even here, the results are influenced by so many uncontrollable extraneous factors as to make evaluations difficult, and significant only where larger groups are employed. The small group experiments such as reported with penicillin tooth powder should be taken as trend indicators because of the tremendous variations within small groups. Kerr and Kesel[7] in their clinical study with Peoria school children reported a 16 per cent reduction in caries in those children who employed a low urea dentifrice formula in a controlled brushing experiment. Dr. Gale,[3] Dental Health Officer for the Corporation of Glasgow, Scotland, used 3-year-old children in a controlled project on a high urea dentifrice powder. His group is an especially interesting one because of the minimal effects of extraneous factors and the minimal incidence of incipient enamel caries.

He found an average of 48 cavities for the first year in the control group which was an increase of 137 per cent in caries incidence for the year. The test group, on the other hand, experienced 29 cavities for an increase of only 48 per cent in caries experience for the year. Thus in this experiment a reduction of approximately 65 per cent was produced by controlled brushing with the high urea tooth powder. This experiment is particularly interesting because of the age of the children and also because it was well controlled even to the point of the children having their teeth brushed for them.

Two other clinical studies known to the author confirm this clinical effect of high urea dentifrices. Both of these studies are on groups large enough to be statistically significant and yet small enough to be well controlled. In both of these experiments, in which high urea tooth paste is the test material, the preliminary reports are extremely promising.

Thus the picture is completed and the early hopes for the ammoniated dentifrices are gradually being confirmed. A mass of data is being accumulated showing the effect of the active ingredients of these dentifrices on the teeth and oral environment. Additional data has shown how these effects should reduce tooth decay. And, finally, the hamster and the human both show, in controlled experiments, that urea and diammonium phosphate will markedly reduce tooth decay. Of course, this does not mean the end of the caries problem, but it does establish the value of the ammoniated dentifrices in the armamentarium of prophylactic agents and the old adage about an ounce of prevention applies also to the dentifrice field. The evidence, both laboratory and clinical, indicates that ammoniated dentifrices will reduce tooth decay—and the high urea ammoniated dentifrice formulas seem to do the job best.

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Your Trade-Mark Record

(Continued from page 795)

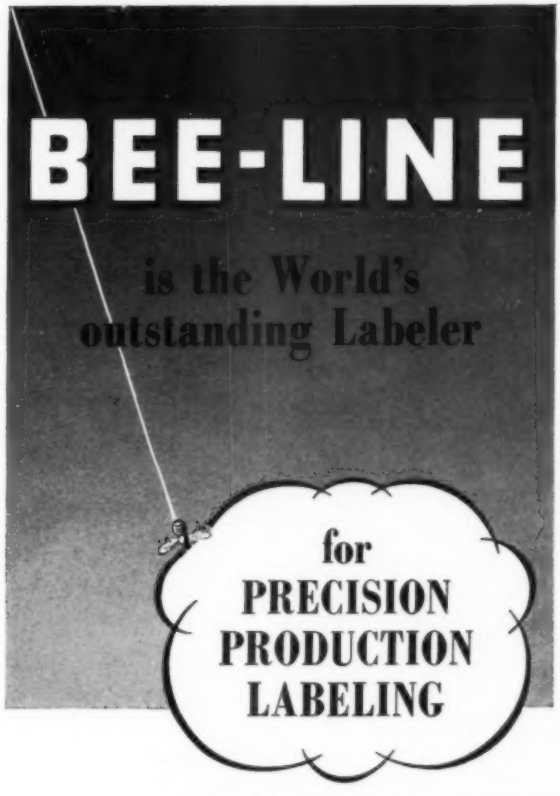
5. "Scotsbrier" was not considered confusingly similar to "Scotchmoor" and "Scotchmist," all being for articles of apparel.

6. The Court of Customers and Patent Appeals upheld prior decisions which stated that "CROMVELLA" was not confusingly similar to "CROWN," the goods again being wearing apparel.

"AMICIDE" was held to be confusingly similar to "AKTICIDE," both marks being used for insecticidal and germicidal goods.

TRADE-MARKS

Ann Barton—51—A-B CDEGH—573,684
Sears Roebuck & Co., Chicago, Ill.
Ser. Feb. 10, 1949 D. U. August 1935



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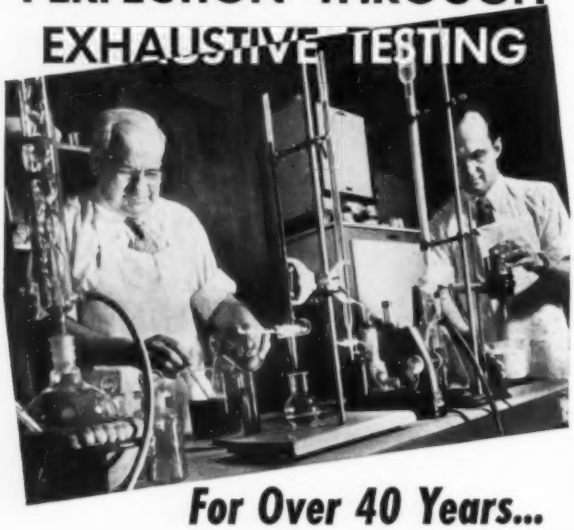

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Belvidere—51—BCDIS—592,750
Belvidere Creations Inc., Seattle, Wash.
Ser. Feb. 20, 1950 D. U. Dec. 13, 1949
Blush Tan—51—C—541,211
Richard Hudnut, N. Y., N. Y.
Ser. Apr. 17, 1951 D. U. July 25, 1947
Bosun—51—I—574,830
Hyman Frieden, DBA Cavalier Labs., Norfolk, Va.
Ser. Mar. 3 1949 D. U. Feb. 5, 1949
Bronze Lady—51—B—600,768
A. W. Curtis Labs., Detroit, Mich.
Ser. July 17, 1950 D. U. June 16, 1950
Browling—51—C—540,942
Rimmel Inc., N. Y., N. Y.
Ser. Apr. 10, 1951 D. U. Mar. 24, 1948

Spray Antiperspirants

(Continued from page 729)

junct to the antiperspirant itself. This would be no less true in the spray antiperspirants.

The author has attempted to indicate that there are several active patents pertaining to antiperspirants in general. Many of the materials mentioned above may come within this category and it must therefore be further stressed that the formulator and manufacturer acquaint himself with the details these patents cover and take the necessary steps to conform by either a licensing arrangement or by avoidance of their claims.

Proprietary Meeting

(Continued from page 731)

"Your desire for facts led you to establish the Institute for the Study of Analgesic and Sedative Drugs, the Therapeutic Research Foundation, the Phenolphthalein Institute, and the External Products Research Institute. All of these organizations have completed work to their credit, which is of value to the members of the medical profession, as well as to the drug industry as a whole. This definitely shows your desire to insure the consumer of the greatest protection possible through the sale of good products, properly labeled and advertised. But do the critics of the proprietary industry and its advertising discuss these achievements? They certainly do not."

Federal Trade Commission Chairman James M. Mead, had the following message on substitutes to deliver to the association:

"It is an inevitable result of a national defense program, such as is now in operation, that there should develop shortages both of men and materials. These shortages necessarily mean added responsibilities.

"First, there is the matter of a shortage of physicians. We have no means of determining at this time how critical this shortage of physicians may become. It is expected that it will be serious enough to limit the number of people who can receive proper medical services. There may be others who, due to the high cost of living, cannot afford the expense of a doctor. These persons who are denied professional medical attention can be expected to place more and greater reliance on proprietary drugs to relieve their suffering. It thus becomes more incumbent upon you to be accurate in your claims. To an equal degree the Commis-

sion must recognize its increased responsibility to make certain that your claims are true.

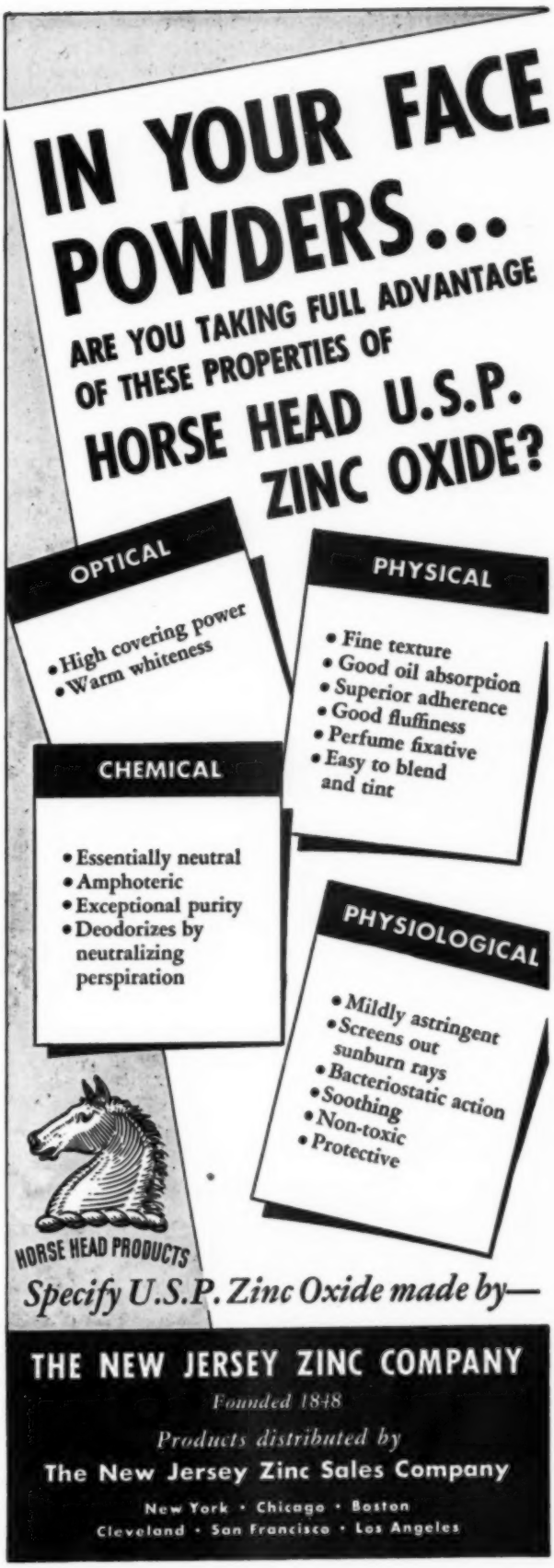
"With the shortage of manpower in government, it is the earnest desire of the Commission to utilize its personnel as economically as possible. Some of its trained and experienced employees are already detailed to special duty in connection with the defense effort and such losses from its regular force are expected to make it increasingly difficult for the Commission to adequately maintain its usual functions.

"Another shortage anticipated is that of materials. The members of this industry well remember their experiences of World War II. Many crude drugs, essential oils, and other raw materials for proprietary preparations, normally imported from abroad, became unavailable or in short supply. It became necessary to develop and use substitutes and synthetics because of such shortages as occurred in quinine, glycerine, agar, alcohol, opium, derris and other drugs. It also became necessary to encourage research and domestic production of other important crude drugs such as belladonna, digitalis, ergot, stramonium, and others. Incidentally, we are familiar with the successful and sufficient domestic production of many crude drugs, including belladonna, digitalis, ergot, stramonium, and others, to satisfy our needs which in the past were met almost entirely from abroad. It is recognized that the necessities of the defense program will again force manufacturers to use substitute materials.

"The use of substitutes and synthetics, even when made in good faith, due to lack of drugs usually available, is not without peril to manufacturers and advertisers. If the effect is to cheapen the product, it is likely that a violation of Economic Stabilization Administration regulations will occur unless the article is given a new price ceiling.

"A substitution of material may also cause a violation of the Federal Trade Commission Act unless extreme care is exercised. Some of you may be familiar with the case involving Royal Baking Powder, which had been sold for more than 60 years with great stress on its cream-of-tartar content. The advantages of cream-of-tartar and the superiority of Royal Baking Powder because it contained this ingredient rather than phosphate and alum, which were included in competitive products, had been the main theme of the advertising for many years. In 1919, when cream-of-tartar was scarce, a phosphate was substituted for it in this product. The Royal Baking Powder Co., in its advertising, did refer to its new and different product. The Commission found, however, that over the period of years the advertiser had developed in the minds of the purchasing public an association between Royal Baking Powder and cream-of-tartar, and that the packaging and advertising for the revised product, substituting phosphate, was not sufficient notice of the radical change made.

"Many proprietary preparations, through years of usage and extensive advertising campaigns, have become well fixed in the minds of the public as containing



definite ingredients or capable of producing certain results. These impressions are frequently fostered deliberately by the use of slogans or by the actual wording of trade names. Any change in well-known ingredients, or any change in the formula which results in any substantial difference in the action of a preparation, would seem to require a fair and clear disclosure to the public. In this connection if the name of the preparation includes or suggests the nature of the displaced ingredient or ingredients, the continued use of such name would seem to be questionable.

"It should be observed particularly that whereas the Economic Stabilization Administration is interested primarily in a cheapening of a product, the Federal Trade Commission is interested in a material change, whether or not cheapening results."

The Cosmetic Code

(*Continued from page 723*)

It is easy to mention substitutes for the demonstrator service such as advertising, window displays, direct mail to customers, all paid for by the manufacturer, but what is the answer if none of these services or facilities when used provide the equivalent of sales which are secured through a demonstrator.

The great question then is—is the manufacturer required to furnish services, facilities, allowances for payments to customers which may be of great advantage to the customer but which may be of no use to the manufacturer.

It is almost axiomatic, for instance, that advertising service is not infinitely divisible on a percentage basis whether the advertising is cooperative or not. There is a minimum of advertising space and circulation which affords any return to the customer or to the manufacturer, for the same reason that the manufacturer cannot get any return from the services of a demonstrator working 1/10 or 1/20 part of the time.

Suppose instead of putting the burden upon the manufacturer, the manufacturer announces freely what services he is giving to a department store or to other customers. Suppose the manufacturer then says "I am giving X department store a service which is costing me 15 per cent of sales. I shall be very glad in accordance with the cosmetic code to offer you the same discount provided you can perform for me something which is equally effective in sales to the services I am getting from a demonstrator." Why should the burden of proof be upon the manufacturer if he is willing and able to offer an equivalent service or facility to the customer if, as a matter of fact, the customer is quite unable to perform a reciprocal service for the manufacturer which will net the manufacturer the same results as that afforded by a regular demonstrator.

A strict reading of the Robinson-Patman Act might make it appear that the customer is entitled to the extra allowance even if it is not of a value to the manufacturer of the same allowance to another customer. The Robinson-Patman Act provides:

"It shall be unlawful for any person engaged in commerce to pay or contract for the payment of anything of value to or for the benefit of a customer of such person in the course of such commerce as compensation or in consideration for any services or facilities furnished by or through such customer in connection with the processing, handling, sale, or offering for sale of any products or commodities manufactured, sold, or offered for sale by such person, unless such payment or consideration is available on proportionally equal terms to all other customers competing in the distribution of such products or commodities."

There is nothing said in the Act whether the service, facility or allowance shall also be of any value to the manufacturer. However, the situation is not as hopeless as it sounds in view of the decision of the United States Supreme Court, in the case of Standard Oil Co. v. Federal Trade Commission, 71 Supreme Court Reporter 240, decided January 8, 1951. It is clear that the discounts mentioned in that case to a certain group of customers were technical violations of the Robinson-Patman Act, but it must be remembered that the Robinson-Patman Act also provides

"Provided, however, That nothing herein contained shall prevent a seller rebutting the prima facie case thus made by showing that his lower price or the furnishing of services or facilities to any purchaser or purchasers was made in good faith to meet an equally low price of a competitor, or the services or facilities furnished by a competitor."

and the decision of the United States Supreme Court was founded on the fact that the discrimination in price against certain customers was done purely to meet competition. We quote from the syllabus of the Standard Oil case:

"If a large customer requests seller to meet a temptingly lower price offered by seller's competitor, under such circumstances that loss of such customer would result in forcing a much higher unit cost and higher sales price upon seller's other customers, seller is not compelled by Robinson-Patman Act to choose only between ruinously cutting prices to all customers to match the price offered to one, or refusing to meet competition and then ruinously raising prices to remaining customers to cover increased unit costs, but seller may meet in good faith the price offered to such customer without necessarily changing price to other customers. Clayton Act, paragraph 1, and paragraph 2 (a), as amended by Robinson-Patman Price Discrimination Act, paragraph 1, 15 U. S. C. A. paragraphs 12 and paragraphs 13 (a).

"The good faith purpose of meeting a lawful equally low price of competitor, as defense to charge of price discrimination under Robinson-Patman Act, is not destroyed merely because beneficiaries of price reductions may derive a competitive advantage from them or may, in natural course of events, reduce their own resale prices to their customers. Clayton Act, paragraph 1, and paragraph 2 (a), as amended by Robinson-Patman Price Discrimination Act, paragraph 1, 15 U.S.C.A. paragraphs 12 and 13 (a)."

Suppose, for instance, that a manufacturer sells only to department stores and furnishes demonstrators to such department stores and does not sell to drug stores. Would it therefore not appear that a competing manufacturer selling both to drug stores and to department stores should be permitted to furnish demonstrators to department stores only to meet competition so that he would not be in a less favorable position than a competitor.

If the Federal Trade Commission should decide that the facility or allowance was actually made on an equal basis to all customers, would the manufacturer be required to actually continue such allowances indefinitely where no reciprocal return to the manufacturer was provided?

In the Elizabeth Arden case, the United States Circuit Court of Appeals for the 1st Circuit affirmed the cease and desist order of the Federal Trade Commission but in the other demonstrator cases no cease and desist orders have as yet been issued.

Since there is a well founded belief in many quarters that the Standard Oil case above referred to may have an important effect in the interpretation of the Robinson-Patman Act, it would appear desirable that one or all of these demonstrator cases be appealed to the Circuit Court of Appeals if and when a cease and desist order is issued so as to get a review of these cases in the light of the Standard Oil decision. It might well be that the Circuit Court of Appeals of the 1st Circuit might have taken a different view even of the Elizabeth Arden case if the pronouncement of the United States Supreme Court in the case of Standard Oil Co. v. Federal Trade Commission, 71 Supreme Court Reporter 240, decided January 8, 1951, had been part of the law when the decision in the Arden case was made.

P. M.'s

The new rules do not ban P. M.'s or "push money" because it is clear that where a store handles only one line of cosmetics, it would be perfectly legal to continue paying P. M.'s as it could have no effect on competition and is merely an extra payment to the clerk. It would seem, however, that where goods on which P. M.'s are paid are in open competition with goods on which no P. M.'s are paid that in that case the customer would have to be informed very clearly of the payment of P. M.'s and a full disclosure of such payment would have to be made by the customer.

The over-all tendency of the new rules regarding P. M.'s certainly tend in the majority of cases to the abolition of P. M.'s altogether. If all the authorities consulted agreed that all P. M.'s would have to be disclosed to the customer, and that the giving of P. M.'s would have to be publicized by every manufacturer, then the value of P. M.'s would entirely disappear. If every manufacturer gave P. M.'s in order to meet competition then the whole preferential value of P. M.'s would be destroyed and the P. M.'s would mean only another discount. In that event their entire abolition would be a service to the industry.

The ostensible purpose of the Robinson-Patman Act

KOMMON/ SCENTS!

Even if the Korean conflict doesn't spread, American history will record it as a General War: MacArthur and Whitney vs. Marshall, Bradley, et. al.

•

The rhetoric supplied by the Military tops anything marshalled by the nation's duly elected representatives. Unkindly, perhaps, one wit observes that "old soldiers never die. They move to the Waldorf-Astoria and start to live."

•

Although some citizens may doubt the judgement of the President, few would challenge his courage. There are many, especially rank conscious ex-G.I.s, who think the ex-Captain who tangled with the General bit off more than he can chew out.

•

MacArthur showed he can turn a phrase as well as an enemy's flank. Before a Joint Session of Congress he established two things: (a) He has a political viewpoint. (b) He has a right to express it publicly.

•

Biggest problem of his supporters was to consolidate this assault with their previously established positions: (a) "MacArthur has military, not political views." (b) "MacArthur did not express his political disagreement publicly."

•

Biggest satisfaction in the airing of our troubles was for that sterling, peace-loving, democratic, anti-militarist, Generalissimo Joe Stalin. Familiar with the problem of disagreeing generals, Stalin has Kremlin walls that are bullet pocked by firing squads to prove his "democratic" genius.

•

The Cosmetic Industry, of course, is profoundly disquieted by the MacArthur-Truman differences. It confirms an old suspicion: "An energetic branch manager can raise hell with a fat and happy board of directors."

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was to prevent discrimination against the small retailer but if the economic set-up is such that small retailers cannot afford a reciprocal service to the manufacturer, would there not be the tendency instead of relieving the small retailer that the manufacturer would summarily close the account as he still has the right to choose his customers.

The net effect of too strict an interpretation of the trade practice rules would, therfore, be to cancel the service of any number of small retailers as distributors. The over-all tendency in case the manufacturer were penalized into making unprofitable allowances to all customers would be the abolition of such allowances or facilities generally and the money hitherto spent for such purposes would be devoted to the stepping up of national advertising an increased budget for that purpose. The net result would be not the relief of the small retailer but the possible lessening of retailer outlets and also the abolition of the small manufacturer as national advertising is a resource available to the large manufacturer only.

In view of the impending rules what should the toilet goods manufacturer do:

1. Demonstrators—It is clear that whatever the outcome of the enforcement of the present rules may be, that they are intended to provide that demonstrators must be furnished on a percentage basis, that is proportional to the amount of goods sold. Hitherto, manufacturers have furnished demonstrators not strictly on a percentage basis but based on over-all figures of preceding years or on expectancies for succeeding years, but never proportional to the exact sales. It wold appear from the rules that this is no longer possible and that any allowances for demonstrators must be strictly on a percentage basis.

2. Substitute Services—In the absence of further clarification, the manufacturer should be prepared to furnish to all of his customers the services, facilities, allowances and discounts which he is prepared to furnish them and should at the same time inquire of his customers what corresponding service they expect to perform. It cannot be expected that the manufacturer as a result of the promulgation of these rules should merely add an extra discount for the customers who are not prepared to furnish commensurate services to the manufacturer because as a matter of fact this would be a discrimination against the customer such as the department store who provides a real service in return for a certain allowance. If the cost of a demonstrator in a department store is 15 per cent of sales and a druggist retailer competing with the department store cannot furnish commensurate services to the manufacturer, it would appear as a discrimination against the department store that unless some reciprocal and effective service can be furnished that the druggist should get an extra discount for which no equivalent is furnished the manufacturer.

In view of the foregoing remarks it cannot be pretended that the question of what is the proper procedure can be determined at this time, and it will need a great deal further study, exploration, experimentation and perhaps adjudication in the courts.

3. P. M.'s—If P. M.'s are paid they should certainly be available to all customers on an equal basis. According to the new regulations where goods paying P. M.'s are sold in competition with goods not paying P. M.'s, it is the intention of the rules that the fact that P. M.'s are paid must be conveyed to the customer.

Modern Burn Therapy

(Continued from page 733)

given intravenously allays pain and fear and therefore decreases shock.

The prevention or treatment of shock takes top priority in burn therapy; antishock procedures having precedence over local measures.[19] Evans[6] explains that shock in the severely burned person is caused mainly by the loss of plasma and some red cells into the burned zone, with a resulting diminished blood volume. This is followed shortly by a sharp drop in cardiac output. In the young adult, burn shock rarely occurs unless at least 15 per cent of the body surface is involved, but in the very young and the aged, Evans has seen shock with less than this amount of burned body surface. Hence, in mass casualty techniques, as would be required in the event of an atomic bombing, he takes the view that shock may be anticipated in a body burn of more than 10 per cent.

Evans states that shock is prevented by the timely intravenous infusion of adequate amounts of plasma or plasma substitutes in patients with burns covering as much as 25 per cent of the body surface. With more extensive burns he prefers to give equal parts of plasma or plasma substitutes and whole blood. Significant is the statement that he and his colleagues have had rather wide experience with gelatin and dextron and have found these plasma substitutes to be safe and effective. In this connection, it should be noted that a comprehensive discussion[20] on plasma substitutes appeared in the April issue of DRUG AND COSMETIC INDUSTRY.

Various formulas for calculating the colloid requirements of the burned patient are available. Evans, however, points to the likelihood that the adequacy of shock treatment for mass burn casualties may well be measured by the simple observation of hourly urinary output.

Salt and water, by mouth if possible or by vein if necessary, are usually required to ensure an adequate urine output. The fluid intake of the burned individual, especially that given by vein, must be carefully regulated, since an excess may cause overloading. Such a condition is dangerous in that it can produce pulmonary edema and cardiac embarrassment.[4]

In a symposium on burns, Cope[21] observed that plasma provides water and electrolytes, but too much protein. It is therefore a good, but not an ideal, infusion agent for burns. The object should be to give colloids and electrolytes in the volume necessary to

replace that lost in the burns. In common practice, the colloidal material is mixed with salt solution; plasma being diluted with physiologic saline for administration in an amount equal to the estimated loss of plasma into the wound.

In his report on the treatment of burns after an explosion of an atomic bomb, Lund[5] states that salt solution given by mouth has been shown to have a definite preventive effect on the development of burn shock. Such findings form the basis of the recommendations issued last year by the Surgery Study Section of the National Institute of Health.[22] This group advises that saline solution be routinely administered orally to patients in shock due to burns or other serious injuries in the event of large-scale civilian catastrophe. The salt solution found most palatable was made by dissolving 3 to 4 Gm. of sodium chloride and 2 to 3 Gm. of sodim citrate or ordinary baking soda in a liter of water. The salt concentration should be less than 140 milliequivalents of sodium per liter in order to avoid vomiting and diarrhea. No other fluid by mouth is permitted until edema of the injured parts begin to subside. Severely burned adults have drunk as much as 10 liters of this hypotonic saline solution in 24 hours. In the presence of profound circulatory collapse, intravenous therapy must be given until peripheral blood flow is re-established. For this purpose Hartmann's solution or blood plasma is most satisfactory. Concurrent transfusion of Whole blood enhances the effectiveness of the orally administered saline solutions.

This note has received wide circulation and publication in the medical press. More simplified instructions have been made available not only in medical journals,[23] but also in a special pamphlet[24] issued by the Public Health Service. In general terms, the procedure calls for the use of a solution containing approximately one level teaspoonful of table salt and one-half teaspoonful of baking soda for each quart of water. A number of quarts are required each day. The only limitations on the amount consumed is the ability of the patient to consume the saline solution. Since great thirst accompanies serious burn injury, it has been found that patients will voluntarily consume a sufficient amount of the solution, which is quite palatable. No other drinking fluid is permitted in the first two days following injury.

After the threat of shock has been met, treatment of the burn itself is begun. Compared to the local burn therapy of a decade ago,[25] modern treatments are simpler and, broadly speaking, more uniform. Many of the materials and methods formerly used such as the tannic acid coagulation procedure, have been discarded or now occupy a minor position in the burn armamentarium.

The aims of local therapy have been expressed by a number of authorities. Koch,[26] for example, has advocated the following as the fundamental principles in the local treatment of burns: (a) surgical cleanliness to prevent infection; (b) compression of the injured

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area to prevent fluid loss; and (c) rest to allow the tissue to heal in a minimal time. Martin[17] feels that, in the treatment of the local area, the objective is the closure of the wound at the earliest possible moment compatible with success and with minimal morbidity and mortality. In England, Colebrook and his colleagues[27] have concluded that the avoidance of infection in burned people is the central problem after the management of the shock period. The importance of careful aseptic techniques is strongly stressed by these workers.

As remarked in a comprehensive survey[4] on burns, modern therapy shows a trend toward minimal drug application and the use of sterile dressings, with as little disturbance of the wound as is consistent with safety. Severe initial debridement is discouraged. While some workers feel that cleaning should be limited to the removal of only gross dirt and bits of fabric, others suggest gentle washing with water or a suitable detergent, such as a quaternary ammonium compound or a mild soap solution. Thus, in one widely consulted medical manual,[10] it is advised that bacterial contamination can be lessened by thorough cleansing with bland soapy water, irrigation with sterile normal saline, and prompt application of a sterile protective dressing. Martin,[17] however, reserves such gentle cleansing for those cases which have been given ill-advised first aid or have been exposed to extensive contamination. Immediate application of an occlusive compression dressing is recommended for burns that have not been tampered with or which have had a minimum of exposure.

Although the application of penicillin ointments before bandaging is suggested by some workers,[18,27] others hold opposite views. Vincent,[28] for example, stresses that "little can be accomplished by the use of local medication." Like other clinicians, he believes that the beneficial effects of antibiotics for preventing infection can be obtained systemically rather than topically.

Voicing a view expressed by many workers, Blocker[20] has observed that, for the outer covering of the burned areas, pressure dressings have proved themselves superior to other forms of bandaging. According to Pugh[1], the popularization of the pressure dressing, which may be left in place for fairly long periods, is attributable to the following considerations: (a) the prevention of circulatory stagnation and fluid loss, along with support of the part; (b) by being left alone, the risk of inducing secondary infection is greatly reduced; and (c) the elimination of the pain of repeated changing of dressings is most gratifying to the patient. To be effective, however, such a dressing should prevent contamination, should exert firm resilient pressure, should not harm the tissues, and should be easily removable if the occasion arises.[19]

Briefly, in the procedure commonly employed, the burns are covered with a fine mesh, nonadherent gauze; petrolatum-impregnated gauze often being used for this purpose. Ordinary gauze is then applied, after which cotton, machinist's waste, or other bulky material is added. The dressing is held in place with elastic bandage or firmly-wrapped gauze.[30] The bandage is left in place for from one to two weeks. At the end of this period, shallow burns will have healed and deeper burns may be readied for skin grafting.[4]

Suggestions for modifying or improving these dressings have been made from time to time. Martin,[17] for instance, believes that single layers of fine mesh rayon or silk without ointment are superior to petrolatum or other impregnated gauze as the basic layer of the dressing. Blocker[20] mentions the use of standard burn rolls which can be applied quickly and easily, even to patients with extensive burns.

A new type of burn dressing is being used in Korea[31]. The dressings are made of a layer of highly absorbent fine mesh gauze, a layer of absorbent cotton, a layer of non-absorbent cellulose and an outer layer of paper. The gauze layer that goes next to the wound may be treated to reduce irritation to the lesions. The non-absorbent layer prevents bacteria from entering the wound.

This last recalls that various other protective materials have been recommended for this purpose.[27] Thus, if the burn is likely to weep, a sheet of cellophane or special nylon is included in the dressing to prevent organisms from growing in from the outside.[32] Brown, Farmer and Franks[33] have applied sterilized aluminum foil directly to the burn and put the routine pressure dressing over it. They reported good results from this method. The aluminum foil is heat-reflecting, provides a physical barrier to the weeping of fluid from the burned surface, and is a defense against bacterial invasion.

In contrast to the closed, pressure dressing method of treating burns, is the so-called "exposure" method now being tested by several research groups. The object of this method is to obtain and maintain a dry surface after cleansing with a detergent.[34] As explained by Wallace,[35] the leading advocate of this procedure, its essential features are the administration of penicillin systemically, full exposure and elevation of the affected part with as much immobilization as is practicable, and abstention from all local irritants and any form of local heating. The method has definite advantages and disadvantages but, as pointed out by Musselman and Berry[36] in the event of disaster such form of treatment may well be forced upon the medical services by lack of time and materials to apply suitable dressings.

Systemic therapy to combat infection is indicated for all burned patients except those with minor lesions. Even here, however, such medication may be needed if the blebs break and admit infection.[10] As previously indicated and as stressed by Altemeier,[37] the majority of American doctors prefer systemic to topical penicillin. He points out that penicillin has the widest antibacterial spectrum among the major antibiotics, chloramphenical the next widest, and then Aureomycin and Terramycin. However, antibiotics are only a temporary measure in the control of infection in deep burns. These

need surgical removal of the sloughs and a graft cover.

Unfortunately, the skin grafting so often necessary in third-degree burns is frequently delayed by the slow separation of the slough. Chemical debridement methods are often used to hasten slough dissolution to permit early skin grafting.[38] Acetic acid has been used for this purpose but better known is the pyruvic acid method of Connor and Harvey.[39] Their procedure has been rather widely used, but some object[17,19,29] to the pain which it produces. Modified chemical debriding agents have been developed by other workers.[40] More recently, enzymes have been used in the debridement of burn wounds. Streptokinase and streptodornase have been used with good results,[41] and a highly purified trypsin called Tryptor (Armour Laboratories, Chicago) has also been tried.[42]

In addition to measures against pain, shock and infection, steps must be taken to prevent anemia and malnutrition. Malnutrition and anemia develop rapidly in severely burned patients as a result of trauma and subsequent infection. Loss of appetite is quite common. Therefore, every effort must be made, through food and supplemental intravenous therapy, toward maintaining an adequate balance of proteins, calories and vitamins.[10] In the reparative stage, a high protein diet, vitamins, whole blood, liver, and iron are of great importance to promote healing.[43]

The importance of vitamins in relation to severe burns has been stressed by many workers.[44] Thus, it has been suggested[45] that burned patients should be given a vitamin intake ranging from five to ten times their normal daily requirement. This is especially true of vitamin C and B complex. Pertinent, too, is Martin's[17] observation that vitamin requirements are enhanced by the metabolic changes peculiar to burns and parenteral fluid therapy. Additional factors, such as failure of absorption, rapid dissipation, abnormal storage, excretion in unusual forms and vitamin destruction, increase these needs. He suggests the supplementary daily administration of 500 to 2,000 mg. of vitamin C, 25 to 50 mg. of thiamin, and correspondingly large amounts of the other B components in order to maintain proper levels.

Of course no up-to-date discussion of burn therapy could be considered complete without comment on the potentialities of ACTH (pituitary adrenocorticotropic hormone) and cortisone. The possibilities inherent in ACTH were indicated last year when Whilelaw and Woveman[46] reported they were able to obtain "remarkable" results in two severely burned patients following adequate and prolonged administration of the hormone without the use of antibiotics, blood or plasma. The treatment of one of these cases, with burns on 70.7 per cent of his body, aroused considerable interest in both the medical and lay press.[47,48,49]

In discussing the role of ACTH in burns, Clarkson[50] observed that this agent seems to block the body's reaction to injury. Its possible effects, in addition to an action which limits early capillary permeability, include reduction of histamine synthesis and suppres-

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sion of the early constitutional reactions, such as pyrexia, tachycardia, and malaise. Even with burns of 40 to 60 per cent of the body surface, administration of ACTH may permit ambulation and full sleep, with appetite for food from the first day. Its gluconeogenic action helps to protect liver proteins. Later, during the healing phase, the hormone can also prevent the formation of a pyogenic membrane and scar tissue.

Very recently, following their experiences with three severely burned children, Adams and his colleagues[51] stated that the administration of ACTH in such cases is a rational form of treatment that warrants further investigation. In their patients, administration of the hormone produced a decrease in the fever, an increase in caloric intake and an improvement in the emotional status. Its administration in these cases did not interfere with wound healing or the "take" of the skin grafts. Of course, ACTH is a potent substance and its evaluation and use must be cautious.

The possibility that cortisone may play a valuable role in decreasing deaths from burns is indicated in the laboratory and clinical studies of Crassweller, Farmer and Franks.[52] In their first report, they stated that deaths from experimental thermal burns can be markedly reduced by treatment with a urinary extract containing cortisone-active material, combined with intravenous shock therapy. In their clinical tests on three cases of severe burns, routine burn therapy was supplemented by the administration of cortisone acetate. Two of these patients died despite the cortisone; one dying 24 days after the burn and following a most promising early clinical response. The third case, with 70 per cent burn has done well.

Of course, other substances are being tested for their usefulness in burn therapy. For example, considerable experimental study[53] is being given to the anticoagulant, heparin. Thus, in work[54] with dogs, it was found that the administration of heparin definitely accelerated the process of tissue repair. In more recent studues[55] it was observed that the life of fatally burned dogs is prolonged by ordinary therapeutic doses of this agent.

Before concluding, mention should be made of Kessler's[56] preliminary report on the use of antihistaminics in the treatment of burns. In his studies, one group of patients with first and second degree burns was treated with a bland ointment and oral antihistaminics, while another control group received only the bland ointment. In the test group, the erythema and edema were diminished and the healing time was shortened as compared with the controls.

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ADMA

(*Continued from page 727*)

American Pharmaceutical Manufacturers' Association —at its annual meeting rescinded its earlier support of such a general amendment on the ground that there is no longer any public need for this type of control. The American Pharmaceutical Manufacturers' Association in addition called for decontrol of the antibiotics now subject to certification. They propose watchful waiting to see if facts ever warrant further controls of this type.

"Whether this is the end of attempts to extend this type of control by pre-testing remains to be seen. In any event the arguments in its favor are few and unimpressive if we eliminate from consideration that much talked of ne'er-do-well, the fly-by-night manufacturer. Based upon his hypothetical standards, as outlined from time to time by the Administration, he probably should not be allowed to make any drugs at all."

In reviewing the situation surrounding the Durham-Humphrey Bill which is concerned with amending the Food, Drug, and Cosmetic Act with regard to prescription refill control, Mr. Harrop set forth what he termed "certain basic facts that must be recognized in this entire situation," these are:

"1. There has been a certain amount of unlawful refilling of prescriptions for dangerous drugs. This must be stopped;

"2. There will always be a small group of druggists who will violate the law and sell prescription items across the counter. They must be prosecuted;

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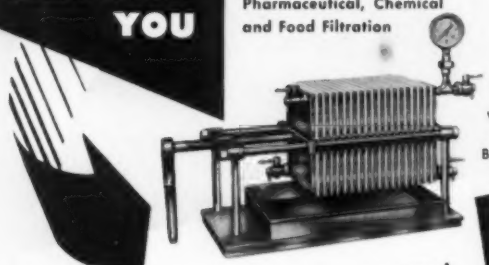

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"There are no differences within the various elements of pharmacy in regard to these problems that are not capable of resolution if the parties will seriously address themselves to them.

"We favor the composition of these differences. To this end we urge that studies and discussions of these problems be continued to a successful conclusion."

Dr. A. Lee Caldwell, of Eli Lilly & Company, reported as chairman of the Research and Development Section, saying in part:

"The forums on Organic Chemistry were handicapped at the very beginning by the nature of the research being carried on in the various laboratories. Many organic research projects have the possibility of leading to patentable products or intermediates. For this reason open discussion frequently died, or was severely handicapped, because of possible impertinent questions or conflicts with management policies.

"Dr. Martin E. Hultquist, of Calco Chemical Division of the American Cyanamid Company, who has been chairman of this committee, quickly realized that a close cooperation between his group and the Biochemistry Committee would contribute to the interest and freedom of discussion. In this manner organic chemical developments could be considered from the biochemical and pharmacological standpoints. At the last meeting sessions were held covering the chemistry, biochemistry and pharmacology of coronary vasodilators. Present world conditions point to other subjects which have been suggested for future organic chemical, biochemical and pharmacological discussions.

"Collaborating in this joint organic chemical-biochemical plan was Dr. Gustav J. Martin, of The National Drug Company. Dr. Martin has given considerable thought to the section activities and has suggested an outline for a program, for future presentations before the section, which should be of interest to every participant. Not only does his suggestion regard the activities of the Biochemistry Committee, of which he is chairman, but for all activities he has stated the purpose well in saying that "the major problem of research in the drug industry is that of establishing itself in its proper perspective."

"The Pharmaceutical Development Committee with Dr. Clarence W. Sondern of Chilcott Laboratories as chairman turned its attention, at the last meeting, to technical service problems with pharmaceutical

products. The early post war period (World War II) seemed to present more new pharmaceutical developments than have been evident during the past couple of years. More has probably been accomplished in the past year with pharmaceutical improvements or innovations than with outright, fundamentally new, pharmaceuticals. Combined sulfa preparations, developments in style or pharmaceutical form for antibiotics, hormones and multiple vitamin products have been ample evidence of this pharmaceutical development work. With products such as these the pharmaceutical development group has displayed its ingenuity. We believe that progress of this type has been enhanced by the activity of the Pharmaceutical Development Committee and that their discussions of technical aspects has contributed to improved pharmaceutical elegance, stability and therapeutic efficacy in numerous products.

"In appraising the developments of research endeavors there is frequently a great tendency to hold to the opinion that nothing is really new. It is well to temper such opinions and to recognize that a new therapeutic or pharmaceutical use, previously unknown, for a substance may be a potentially greater contribution than the discovery of the substance.

"In a report of this type certain examples serve to point out various research results. These examples are significant but not necessarily more significant than some which are not mentioned. We are inclined to mention, naturally, those developments in which some of our section members participated. One of the notable examples is khellin and the work done in evaluating this substance for its value as a coronary dilator. The first synthesis of this compound was achieved in 1949. An extensive review of this subject was on our program at the last section meeting. Ion-exchange resins have been in the hands of the research workers for quite some time but only last year, through the independent efforts of several A. D. M. A. member laboratories and cooperating clinicians, did the cationic exchange resins attain prominence for the treatment of the edematous patient. Continued work on vitamin B_{12} has clarified the chemistry and we have now come to the point where it will be referred to by a more specific name, probably Cyano-Cobalamine. Much has been accomplished during the past several months in evaluating potencies of liver extracts as a step toward dropping the clinical anti-pernicious anemia unit. Improvements in chemical and microbiological procedures for evaluating vitamin B_{12} activity have been acomplished by a number of laboratories associated with our section activities.

"Last year we mentioned compound E in our report. This year that term has been fairly well deleted by the continued rapid expansion of cortisone development. Antibiotics and their part in the nutritional status of animals and the resultant growth promotion have reflected the work of many of our associates. Some of these comments seem repetitious in preparing a report, for some modest or shy predictions were included on

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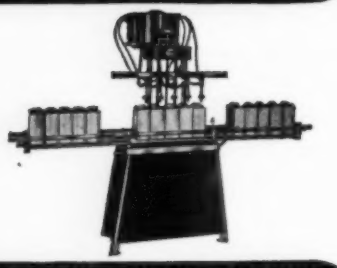

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these subjects in last year's report. We could go on, for the list of accomplishments as a result of careful research continues. These examples indicate, however, the contributions made to medicine.

"Present day analytical and research laboratories have "gone on instruments." Many of these instruments are by-products of research in physical chemistry coupled with problems arising from special pharmaceutical or chemical operations. Press reports on the capabilities of some of these instruments—"Titrations in two and a half minutes"—"Humidity determined and recorded in one minute"—"Carbon dioxide analysis in forty seconds"—all indicate the advances made by physical chemistry. Regardless of these developments we still find the pharmaceutical industry requiring additional manpower.

"The Physico-Chemical Development Committee led by its chairman Dr. J. M. Vandenbelt, of Parke, Davis and Co., is the one committee which is in a position to best document the evidence of its progress. During the three years since its inauguration this committee has established for its group, and for the section, the value of research fellowship as well as the value of specific research projects."

H. D. Liersma, of Lederle Laboratories, reported as chairman of the Biological Section, saying in part:

"All of us are aware of the advances that have followed the widespread use of sulfonamides, and more recently, the antibiotics. Although the biological manufacturing branch of the industry represents a comparatively small fraction of the total drug business, it must be emphasized that it is indeed an important segment of the drug industry. There is an impression in the minds of some individuals that the field of biologics is gradually diminishing in importance as developments in other phases of the drug industry expand. This point of view is not justified and is erroneous, for the field of biologics has been expanding constantly over the last few decades, and is pregnant with many possibilities today."

During the past year, Dr. Piersma said, the activities of the section have been aimed at gaining as much information as possible for use in meeting the requirements of the armed forces. Also a considerable amount of time was spent in discussing standards for refined diphtheria and tetanus toxoids.

Dr. Frank O. Taylor reported, as chairman of the Pharmaceutical Contact Committee, that the final report of the committee on sampling procedures is quite an extensive one, being divided into six parts, as follows: Part 1—Sampling of Raw Materials: General Procedures. Part 2—Lot Identification of Raw Materials. Part 3—Statistical Techniques in Sampling. Part 4—Sampling Devices. Part 5—Survey of Pharmaceutical Industry Practices with Respect to Sampling of Raw Materials. Part 6—Bibliography.

Further extracts from Dr. Taylor's report follow:

"One of the most troublesome problems with which we have been confronted in recent years is that of the limitation placed by U. S. P. XIV on the amount of any U. S. P. Injection which might be placed in a container.

This requirement which limited multiple-dose containers to a quantity not exceeding 10 U. S. P. "Usual Doses" appears in U. S. P. XIV, pages 726 and 727. It is not necessary to go into details in this report for I think you are all familiar with the furor this apparently simple requirement stirred up. Before the date on which U. S. P. XIV was to become official, namely November 1st, 1950, a supplement in bulletin form suspended the effective date of this particular requirement for six months, or until May 1st, 1951. This date has now been reached and technically the original U. S. P. requirement is official but this need be no cause for alarm since active steps toward the complete revision of paragraphs of the U. S. P. XIV in question have been taken and are rapidly being brought to a conclusion so that an official announcement may be expected in the near future.

"We come now to the matter of the long awaited Electronic Machine for the automatic and mechanical inspection of parenteral solutions in ampuls or vials.

"To those of you who saw the first developmental model displayed at our meeting last year in Boca Raton it doubtless seems that there has been excessive delay in bringing that machine into practically usable form. At that time we had not yet been able to analyze the results of the cooperative field tests made in Chicago shortly before the Boca Raton meeting. Such analysis revealed important defects in accuracy of the machine as then constituted. Its sensitivity was not uniform for different types of minute particles, such as glass, fibers, or charred material. The machine appeared to vary in sensitivity over a period of time and the reason for this had to be found by further research before the difficulty could be corrected. The mechanism for correcting such variations, as then devised, was not adequate for continued operation.

"In the course of correcting these faults in the first machine the internal optical system was considerably changed, the sensitivity to various types of particles was rendered uniform so far as now tested and especially with respect to glass and fiber particles. A new type of compensating mechanism was worked out which will maintain continuous uniformity of operation in spite of unavoidable slight variations in the operation of the electron tubes.

"The machine as now constituted will handle ampuls ranging in size from 1 cc. to 10 cc. without replacement of any parts and by means of simple changes which require only a minute or so to make. It will also handle vials of similar size. It can be fed by hand or by some automatic device. Solutions having a moderate color may be inspected without change in the machine.

"In order to overcome the difficulties discovered in the field tests a year ago it has been necessary to increase the complexity of the machine but its sturdiness in operation has been demonstrated by running it continuously for 70 hours without a breakdown.

"It was originally intended to conduct another series of field tests similar to those made a year ago but in view of the fact that all the defects then discovered

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had been corrected and hundreds of tests on carefully selected ampuls had demonstrated its capabilities a full demonstration of these seemed to be more logical and time-saving. Such a series of demonstrations was given to representatives of all the laboratories which contributed to the cost of the research, a total of some $50,000.00, on April 10th and 11th at the Camden plant of the RCA-Victor Co.

"It appears that the machine is now sufficiently well developed so that a number of them can be manufactured for actual production work and the acquiring of experience with them in regular manufacturing operation.

"Not until a considerable amount of such experience has been accumulated will it be possible to set up definitive standards for clarity of solutions and particularly for those reasonable to tolerances which must be recognized if and when any definition of standards is attempted by the Pharmacopoeia or the National Formulary or in the establishment of some reference opinion by the Food and Drug Administration.

"When enough experience and factual evidence has been accumulated it is our hope that the Combined Contact Committee may first suggest tentative standards which after further study and possible modification may be found generally acceptable by all those concerned with this extremely difficult problem.

"It has taken five years to reach this point in our investigations. It will take some time to have even a moderate number of such machines built and put into practical use. After that, in my opinion, we should not attempt to set up any definitive standards until we have the background of at least two or three years' experience. This is the time when excessive speed would be foolhardy."

TGA Meeting

(Continued from page 734)

"The challenge of this trying period ahead will be met successfully as it has been in the past through American ingenuity and resourcefulness, of which this Industry and this Toilet Goods Association has its full share.

"Two years ago the Association was working for the removal of the excise tax; last year for its reduction. Korea killed that. The Association then shifted its effort and is battling, thus far successfully, to prevent any increase in excise tax.

"Even before Korea an Emergency Industry Committee had been organized. The scientific staff and committees were working on substitute raw materials. One of the results was the discovery of the new material zirconium silicate which may be useful even after the emergency is over.

"The Association has been working on Price Control, so far has been successful in keeping the Industry out from under roll-back or other highly restrictive orders."

An interesting and informal panel discussion explored the new trends in retail distribution and their possible effects on the traditional methods of promoting cos-

metics. At the start of the discussion, it was pointed out that the majority of the members of the association have followed, and are continuing to follow, certain extensive sales-training programs, payment of P.M.s, and reliance on heavy promotional activity with prestige outlets. National advertising has been a supporting rather than a primary promotional force for these manufacturers.

How then are these manufacturers going to fare in the years immediately ahead which have been hailed by some experts as the era of self-service merchandising? These experts contend that the sales clerk has become so indifferent, that as a force to move merchandise he is a thing of the past. The customer, presold by powerful national advertising will know exactly what she wants and will not want any extra conversation with her purchase. The retailer's principal interest will be fast turnover; the customer's will be convenience and speed. The manufacturer in tune with the times will be "pulling" his goods across the counter—not trying to "push" them across.

However, it was also pointed out that while the tempo of retailing is constantly being stepped up, there is a very significant paradox in the situation of particular interest to the toilet goods industry. For one of the most important developments of recent years has been the marked growth of door-to-door selling of cosmetics. In contrast to the ever-increasing pressure of retailing, here is personal selling, and selling of the most leisurely kind, producing very effectively. This naturally prompts the question: Is it possible that as retailing becomes more and more impersonal and mechanical, the greater becomes the opportunity of the friendly neighbor calling to make a sale?

Arguing the case of self-service merchandising, and prophesying that the cosmetic industry, being truly a mass industry today, will have to adopt mass merchandising methods, was E. B. Weiss, Merchandising Director of the Grey Advertising Agency, and author of "Mass Marketing to America's 400 mass Retailers."

Earle Lifshey, Managing Editor of *Retailing Daily*, brought to the discussion a very detailed knowledge of door-to-door selling gained through careful study over many years. It was his position that the door-to-door volume was for the most part "created business," which would not otherwise have come into being. The door-to-door saleswomen should not be looked upon as taking volume away from the retail outlet.

Upholding the position of the drugstore in the new era, was John McPherrin, Editor of *American Druggist*. He argued that the druggist was completely flexible and could, and should, adapt self-service display for those items which lend themselves to this method, and could also intensify his personal contact with his customers and even adopt many of the techniques of the door-to-door saleswoman. He urged the manufacturers not to underrate the retail druggist, but to give him more and more support.

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and author of "Selling Cosmetics through Selected Distribution," made it clear at the start that there always had been mass marketing in cosmetics, and always would be. But he went on to make a strong case for the traditional methods insofar as they apply to the treatment lines and higher priced perfumes.

Listening carefully to each gentleman as he expressed his point of view, was Mrs. Charlotte Montgomery, author of "The Woman's Viewpoint" in *Tide* Magazine, and regular contributor to *Red Book* and *Good Housekeeping*. She was, in effect, the court of final judgment, for she represented Mrs. Consumer. Her reactions to the many points raised by the masculine guests were extremely interesting and very pertinent.

At a panel discussion on "prospects for Adequate Supplies of Raw Materials and How they will Affect the Cosmetic Industry," the speakers and their subjects were: J. H. Majesky, Hazel Atlas Glass Company, Glass; George S. Babcock, Owens-Illinois Glass Company, metal and plastic closures; Leonard Dalsemer, Lord Baltimore Press, folding boxes and paper; Arthur J. Brewster, Robert Gair, Inc., corrugated; L. R. Root, Scovill Manufacturing Company, brass, aluminum and steel; Stanley Sapery, Stanley Sapery Co., plastics; Eric Blackstead, Ansbacher-Seigle Corporation, pigments, dyes and intermediates; Paul Hiller, Innis, Speiden Co., heavy chemicals, minerals, etc.; John Montgomery, Fritzsche Brothers, aromatics and essential oils; Louis Hirsch, Welch, Holme & Clark, fats and oils; S. L. Mayham, executive vice-president, the Toilet Goods Association, general.

With regard to plastics, Mr. Sapery was of the opinion that there will be ample supplies of polystyrene for cosmetic use by the Fall. The styrene monomer content in synthetic rubber is being reduced, thus freeing more for other uses. Styrene is not tight at the moment, he said, and a buyer with a history with a supplier should be able to obtain supplies to fill his requirements. However, with regard to acetate, Mr. Sapery said that all cellulose plastics are in tight supply and there appears to be no hope of this situation changing in the near future. Vinyls are fairly free and will improve, he said, while the phenolic outlook is bright with planned increases in production. The acrylic position is very unfavorable with the air forces taking about all that is being produced.

With regard to supplies of talc, Mr. Hiller said that 'no program for restriction of this item has been set up as yet and therefore, manufacturers should have no difficulty in obtaining adequate supplies. While Mr. Blackstead reported titanium dioxide in short supply because of the needs of the armed forces, Mr. Hiller said that contemplated Canadian production might eventually ease this situation.

Mr. Babcock and Mr. Root spoke at some length on the positions of steel, aluminum, tin, and copper and how they believe the manufacturers of lipsticks, compacts, closures, and other products will be affected.

Mr. Hirsch said that there is now a large supply of castor oil in the hands of producers, and that it appears

likely that controls will be eased in the near future. He said that there is a shortage of lanolin for the reason that the wool processors are not supplying a sufficient supply of grease. He sees no possibility of this easing in the near future.

With reference to oil of bergamot from Italy, Mr. Montgomery said that supplies there are sufficient but that producers are holding back supplies for higher prices. This has discouraged buying in this country, and therefore, there are no large stocks here. He declared that bad weather had resulted in a one-third reduction in the crop of Bourbon geranium oil and that prices will remain high for some time. He believes that there will a scarcity for at least two years, with much of the material received here being of questionable quality.

Mr. Mayham reported that presently there is sufficient alcohol available for the industry, but it should tighten up in the last six months of this year. The government "balled up" the molasses situation, in his opinion, or this country would be better off with respect to alcohol. He said that alcohol is being offered by a number of foreign countries, so supplies should be obtainable.

The Association re-elected Mr. Keho president for a second year. Re-elected as vice-presidents were: Jean Despres, Coty, Inc.; John A. Ewald, Avon Products, Inc.; Davis Factor, Max Factor & Co.; H. J. Lehman, Wildroot Co.; Philip Smith, Yardley of London, Inc. was re-elected treasurer, and William F. Denny Jr., Frances Denny, was re-elected secretary.

Directors elected for a three-year term are: Edward J. Breck, John H. Breck, Inc.; Pierre Harang, Houbigant Sales Corp.; Oscar Kolin, Helene Rubinstein, Inc.; C. T. Lipscomb Jr., Pepsodent Division Lever Bros. Co.; John H. McShane, Pacquin, Inc.; Wrisley B. Oleson, Allen B. Wrisley Co.

Associate directors re-elected for another year are: Frederick J. Lueders, George Lueders & Co.; Roy L. Murphey, T. J. Holmes Co.

Dr. Edward Masters, Helena Rubinstein, was elected chairman of the Scientific Section of the association, and Dr. D. H. Powers, Warner-Hudnut, Inc.

The Fragrance Foundation, which held its meeting on the final day of the T. G. A. meeting, reported on its activities of the past year. Approximately $40,000 was collected during the year from members, and this total amount was expended. All were of the opinion that much had been accomplished, and that the future of the organization looks very bright.

Samuel Rubin, Faberge, Inc., was elected president of the Fragrance Foundation for the coming year. Other officers elected are: Vice-president (re-elected), H. Gregory Thomas, Chanel, Inc.; treasurer, Frazer V. Sinclair, *Beauty Fashion* and DRUG AND COSMETIC INDUSTRY; secretary (re-elected), A. L. van Ameringen, van Ameringen-Haebler, Inc. Directors elected for three-year terms are: Oscar Kolin, Helena Rubinstein; Pierre Harang, Houbigant Sales Corporation; Philip C. Smith, Yardley of London, Inc.

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